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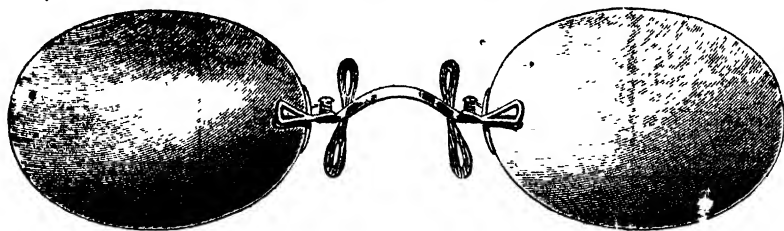
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THE CALCUTTA REVIEW

No. 275, JANUARY 1914.

THE HISTORY OF THE INDIAN MUSEUM.

BY THE HON'BLE JUSTICE SIR ASUTOSH MOOKERJEE,
Kt., C.S.I., D.L., D.Sc.,

Chairman of the Trustees of the Museum.

THE magnificent buildings which enclose within their walls one of the most popular and instructive institutions in the Indian Empire—the Indian Museum—are familiar to all visitors to Calcutta. The Board of Trustees of the Museum propose to celebrate the centenary of its foundation in a befitting manner during the early months of the new year. In view of this commemoration, a brief review of the story of the establishment and development of the Institution may, I trust, be not altogether without interest to all residents of Calcutta as also to a wider public.

To appreciate the history of the origin and growth of the Indian Museum, we must travel back to the last quarter of the eighteenth century, when, after the establishment of British supremacy in this Province, Sir William Jones, one of the profoundest scholars who have devoted their life to the service of this country, founded the Asiatic Society in 1784, and with the boldness which characterized his genius, stated that the bounds of its investigations will be the geographical limits of Asia and within these limits its enquiries will be extended to whatever is performed by

Man or produced by Nature. Sir William Jones, however, in his Inaugural Address did not expressly refer to the foundation of a Museum as part of the activities of the Society, which, at the time and for many years afterwards, had no habitation of its own. But curiosities sent in, from time to time, by Members, began to accumulate, and in 1796, the idea was started that a suitable house should be erected for their reception and preservation. Donations were invited, but the plan proved premature, and it was not till the beginning of 1808 that the Society found itself in a position to occupy the premises erected at the corner of Park Street on land granted by Government. Six years later, definite effort was made to give effect to the intention to establish a Museum, when, on the 2nd February 1814, Dr. Nathaniel Wallich, a Danish Botanist, who had been taken prisoner at the siege of Serampore but released in recognition of his scientific attainments, wrote a letter to the Society in which he strongly advocated the formation of a Museum and offered not only to act as Honorary Curator but also to supply duplicates from his own valuable collection to form a nucleus. The proposal found ready acceptance with the Members of the Society, and it was determined to establish a Museum to be divided into two sections, one called the Archæological, Ethnological and Technical, the other Geological and Zoological. The Librarian of the Society was placed in charge of the former section, while Dr. Wallich was appointed Superintendent of the latter section. The scope of the Museum was defined in the widest possible terms, as an institution for the reception of all articles that might be sent to illustrate oriental manners and history or to elucidate the peculiarities of Art or Nature in the East. Contributions were invited and specimens were solicited, so that the Museum might include "inscriptions on stone or brass, ancient monuments, Hindu or Mahomedan, figures of Hindu deities, ancient coins, ancient manuscripts, instruments of war peculiar to

the East, instruments of music, vessels used in religious ceremonies, implements of native art and manufacture, animals peculiar to India, dead or preserved, skeletons or particular bones of such animals, birds stuffed or preserved, dried plants and fruits, mineral or vegetable preparation peculiar to Eastern Pharmacy, ores of metals, native alloys of metals, minerals of every description" and other like articles serviceable to history and science. The Museum thus inaugurated thrived rapidly under the guidance of its enthusiastic founder Dr. Wallich, and individual collectors, amongst whom may be mentioned Colonel Stuart, Dr. Tytler, General Mackenzie, Mr. Brian Houghton Hodgson, Captain Dillon and Baboo Ramkamal Sen, readily placed at the disposal of the Society interesting and curious objects collected from various parts of the country. After the resignation of Dr. Wallich, paid curators were appointed from time to time for longer and shorter periods on salaries ranging from Rs. 50 to Rs. 200 a month. In 1836, however, the Society, whose resources had been crippled by the failure of the bankers, Palmer and Co., a few years earlier, found itself in financial difficulties, and applied to the Government of India for assistance from public funds to enable it to meet the salary of the Curator. The memorial, which was written by Sir Edward Ryan, then Chief Justice of the Supreme Court and President of the Society, impressively set forth the absolute necessity, for the foundation and superintendence, quite as much for the furtherance of Science as for the instruction of the Indian fellow subjects of the memorialists, of a public depository of the products of Nature in India and the surrounding countries, properly preserved, properly arranged, and properly applied. But although the prayer of the memorial was limited to a grant of the modest sum of Rs. 200 a month, the Governor-General in Council expressed their inability to accede to the request without reference to the Court of Directors who were incurring considerable expense in keeping up a

Museum and Library at the India House; it was conceded, however, that a Museum in this country could not be established by voluntary subscriptions nor maintained in the creditable and useful condition necessary for the attainment of the object desired, unless aided liberally by the Government, in like manner as similar institutions in Europe are supported from the public treasury. The members of the Society, however, were persistent in their demand, and presented a second petition for a temporary grant, pending reference to the Home authorities on the subject of the extension of the Museum and its conversion into a public institution; fortunately, this application was granted. Dr. J. T. Pearson of the Bengal Medical Service was appointed Curator and was succeeded, after a brief tenure of office, by the distinguished ichthyologist, Dr. Melleland. Meanwhile, the memorial of the Society for the formation of a National Museum at the cost of the State had been sent to the Home authorities, strongly supported and recommended by the Government of India. But the difficulties of communication in these days were so great that it was not till 1839 that the Government could obtain a reply from the Court of Directors in London. The Court sanctioned only a grant of Rs. 300 a month for the salary of the Curator and the maintenance of the Museum and also authorized the Government of India to make grants from time to time for special purposes. Dr. Melleland, who had with great ability temporarily filled the office of Curator, now resigned, and was succeeded by Mr. Edward Blyth who had been selected by Dr. Horace Hayman Wilson and proved himself ultimately to be an even more distinguished ichthyologist and naturalist than his predecessor. Edward Blyth took up his duties as Curator in September, 1841, and devoted himself to the duties of his new office with remarkable zeal, but as he was not a geologist, he found himself embarrassed in the management of the geological collections which, at the time, were second in importance only to the archæological collections

of the Society. The difficulty of the situation was, however, successfully met by reason of the timely action which had already been taken by the Government of India. In 1835 the Government of India, encouraged by the satisfactory working of the mines at Raneeaganj and anxious to develop the mineral resources of the country to which attention had been drawn by Dr. Helfer and other scientific officers, had decided to found a Museum of Economic Geology in Calcutta which was actually opened in 1840. Shortly afterwards, in May, 1841, Captain G. B. Tremenheere, who had been sent to England to secure the nucleus of a Museum of Economic Geology, returned to Calcutta with a large and valuable collection of specimens. These were deposited in the Society's Rooms and the Government of India sanctioned an additional grant of Rs. 250 a month for a separate Curator. Mr. Piddington was appointed Curator of the Geological Collection inclusive of the specimens which were property of the Society and which Mr. Edward Blyth had found it difficult to arrange. The Museum of Economic Geology thus constituted continued to occupy the premises of the Society till 1856, when the portion of the collection owned by the Government of India was removed and housed at No. 1, Hastings Street in connection with the Geological Survey of India then recently established. The Government, at the same time, expressed their readiness to receive the specimens owned by the Society, but this could not be done, as the Society, though fully alive to the fact that the collection was likely to be better preserved, better laid out and better taken care of by the members of the Geological Survey, refused to sanction their removal on the ground that the dissociation of a part of the Museum—and that the least expensive but most valuable—might not only prove injurious to the interests of the Society, but possibly destroy the hope which the Society had cherished since 1837 of seeing a National Museum established in Calcutta on a scale worthy of the Metropolis.

of British India. The transference of the Museum of Economic Geology, however, immediately relieved to some extent the steadily increasing pressure on the limited space in the premises of the Society, and, for a short while, more room became available for the display of the Archæological and Zoological collections. But the latter had grown with surprising rapidity under the able management of Blyth with the enthusiastic co-operation of the Members of the Society; and it became fairly apparent that their further growth would before long be arrested by reason as well of the restricted space as the limited funds at the disposal of the Society. In view of these circumstances, in 1856, the Members of the Society decided to submit a memorial to the Government of India for the establishment in Calcutta of an Imperial Museum, to which they expressed their readiness to transfer all their extensive collections except their Library. The dark days of the Mutiny, however, most inauspiciously intervened, and the consideration of the proposal was necessarily postponed. Two years later the question was revived and a representation was submitted to Government in which the Society pressed for the foundation of an Imperial Museum at Calcutta. The Government of India, though fully ready to recognize its duty to establish in the metropolis an Imperial Museum for the collection and exposition of specimens of Natural History in all its branches and of other objects of interest, physical, economical and historical, declined to entertain the project on financial grounds. At the same time the Government of India renewed its offer to relieve the Society by taking over the geological and paleontological collections. The Members of the Society, however, were insistent and decided to memorialize the Secretary of State for India in Council. The effort was successful, and in May, 1862, the Government of India announced that, in their opinion, the time had arrived when the foundation of a public Museum in Calcutta, which had been generally accepted as a duty of the Government, might be taken into

consideration with regard to its practical realization. Negotiations which now followed between the Government of India and the Asiatic Society were protracted till the middle of the year 1865, when it was arranged that the Society should make over to the Board of Trustees for the proposed Museum the zoological, geological and archæological collections and the Government should provide suitable accommodation for the Society in the Museum Building, the portion allotted to the Society to be in their exclusive occupation and control. Legislative sanction was accorded to these conditions by the Indian Museum Act of 1866, and the valuable collections of the Society, accumulated during half a century by a long succession of enthusiastic members, were formally transferred to a Board of Trustees of which Sir Barnes Peacock, then Chief Justice of Bengal, was appointed President. The Members included the Bishop of Calcutta, the Vice-Chancellor of the University and the President and three other representatives of the Asiatic Society. But although the negotiations had been carried on smoothly and harmoniously and had received legislative sanction, difficulties of a grave order emerged as the erection of the Museum Building made slow progress. It was realized before long that the building as planned could not possibly find accommodation for the Asiatic Society in addition to the Geological Survey and the Natural History Museum ; it further became apparent that if the Asiatic Society were squeezed into the Museum Building, its position as an independent body would be liable to be seriously affected. The Society consequently expressed its unwillingness to enter a building where accommodation was insufficient and freedom of action was liable to be cramped. The position thus created was one of great embarrassment, but the difficulty was solved by a committee consisting of one of the most sagacious administrators and one of the acutest scientists in the country, Sir Ashley Eden and Dr. Thomas Oldham. Upon their joint recommendation, the Government of India paid to the

Asiatic Society a sum of one and a half lakhs of rupees as compensation for its claim to accommodation in the projected Museum Building. Doubts were expressed at the time as to the propriety of the course thus adopted, but after the lapse of nearly half a century, no one will venture to dispute that the arrangement has been highly beneficial to both the Institutions and has fostered their growth and development.

We have now arrived at the stage at which the Museum ceased to be the property of the Asiatic Society of Bengal and was transformed into an Imperial Institution, but it was not till 1875 that the Museum Building, one of the largest in this city, became ready for occupation. As may be anticipated, the transference of the zoological and archæological sections to the new building and the arrangement of the specimens was a work of much labour and anxiety. This was successfully accomplished by Dr. John Anderson, who formerly held the Professorship of Natural Science in the Free Church College at Edinburgh and was appointed the first Curator on the 29th September 1886, immediately after the statute by which the Museum was established had been passed. A few years later, Dr. Anderson's designation of Curator was changed to that of Superintendent, and he was also permitted by the Board of Trustees to hold the Professorship of Comparative Anatomy at the Calcutta Medical College in addition to his duties at the Museum. In the work of organization of the Museum in the new building, Dr. Anderson was ably assisted by Mr. James Woodmason. Dr. Anderson had foreseen, as early as 1867, that the assistance of a competent naturalist was essential to enable him effectively to arrange and organize the zoological section, and on his representation, the Government sanctioned an additional post of Assistant Curator, subsequently designated Deputy Superintendent. Considerable difficulty was at first experienced in the selection of a qualified assistant, but two years later, in 1869, the Trustees were fortunate to secure the services

of Mr. James Woodmason who had been selected for the post by Professor Huxley and Sir Joseph Hooker. Mr. Woodmason proved himself a very capable and devoted worker and ultimately succeeded Dr. Anderson as Superintendent when the latter retired in 1886. The exacting work of reorganization of the Museum, upon which Dr. Anderson and Mr. Woodmason were engaged, occupied them for over two years, and thus, although the Museum Building was ready for occupation in 1875, it was not, till the 1st April, 1878, that the gallery containing the collection of birds as also the archæological gallery were thrown open to the public, and a few months later, in December, 1878, the public were admitted to the Mammal gallery.

A detailed statement of the changes effected in the constitution of the Board of Trustees from time to time by the Legislature is likely to prove tedious. It is sufficient to state that in 1876 a new statute was passed, by which the statute of 1866 was repealed and the number of Trustees was increased from 13 to 16. In 1887 the number was further raised to 21 and opportunity was given to the Trustees to co-opt additional Members. Finally, so recently as 1910, a new statute was passed by which all the earlier enactments were repealed and the number of Trustees was fixed at 17. Three fundamental alterations in the constitution of the Board of Trustees were introduced by this statute and deserve special mention. In the first place, the officer in charge of each section of the Museum became a Trustee *ex-officio*, and was thus placed in a position to take part in the deliberations of the Trustees. In the second place, three Members were allowed to be elected by public bodies, *viz.*, one by the University of Calcutta, one by the Bengal Chamber of Commerce and one by the British Indian Association. In the third place, the number of representatives of the Asiatic Society, which by the statute of 1866 was fixed at four and was raised to five in the statutes of 1876 and 1887, was reduced to one. The effect

of the changes thus recently introduced will, it is confidently expected, secure the more effective and harmonious administration of the Institution in the future. It is worthy of note that these vital changes were initiated by Sir Thomas Holland, who was, at the time, President of the Board of Trustees and united in a remarkable degree administrative skill with scientific attainment of the highest order.

I shall now pass on to a brief review of the development of the Museum since 1875 when the collections of the Asiatic Society were transferred to the new building. As already explained, the Museum, at the time, consisted, in the main, of the Zoological, Geological and the Archæological collections. In June 1882 the Government of India enquired from the Trustees whether accommodation could be provided in the Museum Building for certain Economic products. The Trustees regretted their inability to accommodate such a collection, but expressed their readiness to favour an extension of the Museum Building for the purpose suggested. Before effect could be given to this proposal, the Great Exhibition of 1883 was held in Calcutta. In 1884, after the Exhibition had been closed, it was suggested that the industrial collections which had been brought to the Museum for the Exhibition and under the designation of the Bengal Economic Museum had been housed in temporary sheds on the site now occupied by the School of Art, might appropriately be amalgamated with the Indian Museum. The times were favourable for the acceptance of this scheme, which was rapidly advanced, and on the 1st April, 1887, the Economic and Arts Section, which had formed a separate institution under the direct control of the Government of Bengal, was placed under the Trustees, with Mr. T. N. Mookerjee, a recognized authority on Indian Artware, as the first Assistant Curator in charge of the new department. The establishment of this new section at once made it essential for the Government

seriously to grapple the question of additional accommodation which had been first mooted in 1882. The result was that in 1888 the construction of the wing in Sudder Street was commenced, and in 1891, Mr. Thurston, who was then officiating for Dr. Watt, the Reporter on Economic Products, found himself in a position to remove to the new building all the collections of Economic Products, Artware and Ethnology. The Art gallery itself was opened to the public in September, 1892, and the Ethnological gallery in January, 1893, but the Economic Court was not opened to the public till several years later, in 1901, when Sir George Watt, the head of this section, retired and was succeeded by Mr. Burkill. The Museum which, as we have seen, had originally started with the Zoological and Archæological sections, had thus engrafted upon it in course of time the Economic and Art section, while the collections in the possession of the Geological Department, over which the Trustees retained and exercised only visiting powers, occupied a somewhat anomalous and undefined position. The time had now evidently arrived at which, it was essential, in order to secure the proper co-ordination of the Institution as a whole and to ensure its harmonious growth in the future, that a comprehensive view of its scope and functions should be adopted. Consequently in 1904, Sir Herbert Risley, then Chairman of the Trustees, proposed that the Museum might be divided into five sections, namely, Zoological, Ethnological, Geological, Archæological, Art and Industrial. This distribution ultimately received the sanction of the Legislature in 1910.

I have now dwelt briefly upon the history of the extension of the Museum building rendered necessary by the establishment of the new Economic and Art section. I shall now pass on to a somewhat different aspect of our activities. As early as 1889 the need for extended accommodation for work and study rooms in the Zoological and Archæological sections made itself keenly

felt. A proposal to construct rooms on the roof of the main building was pronounced impracticable. Consequently, in 1891 the Board of Trustees pressed upon the Government of Bengal to fulfil their pledge to build an additional wing to the Museum as they had agreed to do six years earlier. Three years later, the Bengal Government consented to provide for the accommodation of the offices, studies, laboratories and store-rooms of the Museum and of the Geological Survey of India; this was accepted by the Trustees in satisfaction of all their outstanding claims against the Government. The building operations were commenced and carried on with a rapidity unknown in the annals of the Indian Museum, and in the following year the magnificent new east wing was completed and was available for use as soon as the internal fittings could be provided. The pressure upon the Public Galleries meanwhile continued steadily to increase, and in 1904 a fresh scheme for the extension of the Museum Building on the Chowringhee Road, which had been under prolonged consideration, took definite shape. The scheme was warmly welcomed by the Government of Lord Curzon and a handsome grant was generously provided to meet the cost of this extension. In 1911 this new wing of the Museum was practically completed and its two lower floors were fitted up as public galleries; the top floor of the recently erected range is utilized for the offices of the Art and the Archæological sections, while that of the old building is arranged for use as laboratories, as offices of the Zoological section, and, finally, as a lecture hall for the whole Institution.

It is impossible to give here even a meagre account of the vast collections in the Indian Museum. But I must attempt a rapid survey of the various sources from which the collections have been derived. The Zoological collections have been derived mainly from five different sources. In the first place, we have the original specimens collected by the Asiatic Society of Bengal, mainly under the

guidance of their energetic and devoted Curator, Edward Blyth. These possess an exceptional value as the original documents on which the descriptions of a very large number of Indian animals were based. In the second place, we have the collections made by the Surgeon-Naturalist on board the Royal Indian Marine Surveyship *Investigator*, the Zoological work whereof was initiated at the instance of the Asiatic Society of Bengal in 1875. The first Surgeon-Naturalist was Dr. Armstrong, who held the post from 1875-79, when he was succeeded by Dr. Giles. The latter was followed in 1888 by that distinguished scientist, Colonel Alcock, who subsequently became Superintendent of the Indian Museum. The *Investigator* collection is of unique importance, as we have here specimens of the Abyssal Fauna of the Indian Seas, the majority of which come from depths varying from 100 to 1,900 fathoms. In the third place, we have the invaluable collections made in connection with various expeditions. These include specimens obtained on most of the important military and political expeditions that have taken place during the last forty years on the Northern and Eastern frontiers of the Indian Empire, from the Persian Boundary Commission of 1870 to the Abor Expedition of 1911. On most of these expeditions, a medical man was specially instructed to collect Zoological specimens, and, with the exception of the Lhasa Expedition, euphemistically called the Tibet Frontier Commission of 1903, the specimens collected have been deposited in the Indian Museum. It is a hopeful sign that on the occasion of the Abor Expedition, a Zoologist was officially deputed to collect specimens and information regarding the fauna and anthropology of the country traversed. In the fourth place, private donors, too numerous to be individually mentioned, have ungrudgingly enriched the collections; but I cannot allow the present occasion to pass without special mention of the names of two distinguished officers of the Geological Survey whose

contributions are of abiding value, I mean Ferdinand Stoliczka and William Blanford. In the fifth place, we are indebted to several of our officers for the contribution of valuable specimens to the collections. Two of our Superintendents, Dr. Anderson and Dr. Alcock, accompanied military or political expeditions beyond the frontier as doctors and naturalists, the former on two expeditions to Yunnan in 1868 and 1875 and the latter on the Pamir Boundary Commission in 1896, while our Assistant Superintendent, Mr. Kemp, joined the Abor Expedition of 1914 in the sole capacity of naturalist. These scientific workers made the fullest use of their exceptional opportunities, and the collections thus secured have proved to be of unique value, while the increased facilities for scientific tours latterly afforded to the members of our Zoological staff has helped us greatly to make notable additions to our collections, more particularly of aquatic animals. When we turn to our Geological collections, we have, in the first place, the specimens collected by the members of the Asiatic Society of Bengal in the old days, and, we have, in the second place, the specimens collected by the officers of the Geological Survey since its foundation in 1851. The history and development of this department have proceeded generally on the same lines as those of the Zoological collections. But there is this fundamental difference between the two cases, that our Geological collections represent the result of a continuous policy supported by a comparatively large scientific staff, and, as a consequence, the Geological collections are even more adequately representative of the Indian Empire and its frontiers than the Zoological collections. I must not, however, venture upon even a superficial survey of the contents of our Geological collections, as that would practically imply an attempt to write a history of the operations of the Geological Survey of India during the last sixty years. We next come to our Archæological collections which are of unquestioned value to every serious

student of Indian Antiquities. The most considerable and, possibly the most attractive portion of our Archæological collections still consist of the statues, sculptured stones, inscriptions and coins collected by the Members of the Asiatic Society of Bengal or presented to that Institution by investigators in all parts of the country before the establishment of the Indian Museum as a separate Institution maintained from the public funds. Every student of Indian Antiquities, who has in any degree made himself familiar with the contents of the Asiatic Researches and of the Journal of the Asiatic Society will recollect that the names of many early contributors are closely connected with the specimens lent by the Society to the Indian Museum and now located in the Museum buildings. Of this distinguished band of contributors, the name of General Alexander Cunningham stands out pre-eminent; and to him we owe the removal and preservation of the Bharut Stupa Rail, now one of the finest and most interesting existing relics of early Indian Architecture. It is only necessary to add that since the Archæological section was placed under the Director-General of Archæology in 1910, many valuable coins, statues and other objects of interest have been deposited in Calcutta; amongst these, possibly the most notable addition to our collection consists of two figures of a bull and a lion respectively, which date from the time of Asoka and now stand erected at the entrance to the Museum. Before I leave the Archæological collections, I cannot but make a passing reference to our extensive collection of coins, many of them lent by the Asiatic Society of Bengal, which have been from time to time exhaustively described and catalogued by such competent numismatists as C. J. Rodgers, Vincent Smith and Nelson Wright. Our Industrial collections also are of exceptional importance and form an extremely interesting group of objects. Some of these are specimens of industrial arts collected by the members of the Asiatic Society; but, as I have already indicated, a substantial portion of these exhibits was transferred

to the Museum only after the close of the Calcutta Exhibition of 1883-84. Until quite recently, the Ethnological collections also were included in the Economic section; they comprise weapons, implements, clothings and other articles used by the various Indian tribes and races as also life-size models of typical individuals carefully prepared on the occasion of the Calcutta Exhibition. But some of the models of mechanical appliances can be traced as far back as 1828, while a collection of Javanese weapons is said to have been presented to the Asiatic Society at an even earlier period by Sir Stamford Raffles, who was British Governor of Java in 1815. Perhaps the most notable single addition to this collection is the fine set of Indian musical instruments presented by our distinguished fellow-citizen Raja Sir Saurindra Mohan Tagore. Finally, we have the Art collections, which have a history entirely different from that of the exhibits in the other sections. Some of these were transferred from the Industrial section as recently as 1910, but a very considerable proportion is the property of the Government of Bengal and owe their preservation to the energy and enthusiasm of successive Principals of the Calcutta School of Art; this observation applies with special appropriateness to the pictures which were selected principally by Mr. E. B. Havell and Mr. Percy Brown.

There is only one other aspect of our activities which deserves prominent mention, namely, the distinguished part taken by the Institution in the noble cause of the advancement of knowledge. It would be difficult to overestimate the importance of the Biological and Geological research strenuously carried out by our officers, though it is by no means easy to assign, except in the case of Zoology, the precise credit for such work to the Indian Museum as distinct from the related scientific departments of the Government. It may be maintained, without risk of contradiction, that all the research work not only in Zoology and Geology but also in Meteorology

and Archæology now undertaken by different Government Departments, owes its origin to the activities of the Asiatic Society of Bengal, and for many years the Museum in the rooms of the Society was the chief centre of such work in this country. The study and investigation of Applied Science, more particularly Botany and Chemistry, had a similar origin, but the history of the development of the different sections of the Museum since they came under our control has been so varied that it is only in Zoology that it is possible to establish a claim for anything approaching a monopoly for the Indian Museum. The Geological section, from the time of the foundation of the Geological Survey, has been practically incorporated therewith. The Economic or Industrial section has always been associated with the office of the Reporter on Economic Products to the Government of India, or as he is now designated, the Economic Botanist to the Botanical Survey. The Archæological collections have been lent to the Director-General of Archæology in India. The Zoological section, on the other hand, has never been amalgamated at any time with an Imperial Survey Department, though we are now within measurable distance of the official recognition of the undoubted claims of Zoology as a science pre-eminently useful and important and of the foundation at no distant date of an Imperial Zoological Survey. The result of the position thus accidentally held in the past by the Zoological section has been that the research work accomplished by our officers in this department is embodied in the long series of monographs and in the periodical publications issued by the Trustees of the Indian Museum. "The Records of the Indian Museum," which constitute a Journal of Indian Zoology, have now reached the ninth volume, while the Memoirs, of which four volumes have been hitherto published, include many original papers of first rate importance embodying the result of much patient and laborious investigation. But the highly technical nature of these publications has served effectually to

conceal their contents from the public who are apt to judge of the importance of a Museum solely from the specimens exhibited in the public galleries. It is, however, a source of legitimate pride and satisfaction to all interested in the future development of our work that the excellence of the original investigations carried out by our officers has spread the reputation of this Institution far and wide into every centre where the knowledge of Zoology is cultivated and its claims as a science fittingly recognized.

I have now furnished what, I am afraid, cannot but be described as a somewhat imperfect history of the foundation and growth of the Indian Museum; I have narrated how, a century ago, a small band of scholars, engaged in the study of the history, languages and antiquities of this country and determined upon the investigation of its natural products, laid the foundation for a Museum in this city, entirely with the limited private means at their disposal, how it took the ruling authorities thirty years to realize their undoubted responsibilities in this direction, notwithstanding persistent and oft-repeated reminders, and how once the duties of the Government in this matter were fully appreciated, arrangements were readily made for the establishment and gradual development of an Imperial Museum worthy of the Metropolis of the Indian Empire. One naturally feels tempted at this stage to ask himself, whether the Institution thus founded, developed and nurtured, has fulfilled its mission. I have no desire on the present occasion to enter upon an exhaustive discussion of the true functions of a Museum in relation to the community at large; but a brief consideration of the question may not be entirely valueless. It is now generally recognized that a Museum is an Institution for the preservation of those objects which best illustrate the phenomena of Nature and the works of Man and the utilization of these for the increase of knowledge and for the culture and enlightenment of the people. A National

or Imperial Museum must consequently be equipped adequately for the fulfilment of three principal functions, *viz.*, first, for accumulation and preservation of specimens such as form the material basis of knowledge in the Arts and Sciences ; secondly, for the elucidation and investigation of the specimens so collected and for the diffusion of knowledge required thereby ; and, thirdly, to make suitable arrangements calculated to arouse the interest of the public and to promote their instruction. As regards the first two of these functions, the Indian Museum has no reason to reproach itself. We have taken adequate steps for purposes of record, that is, for preservation for future comparative and critical study, the material upon which studies have been made in the past or which may confirm, correct, or modify the results of such studies. We have also taken measures for the advancement of learning, inasmuch as we have aided learned men in the work of extending the boundaries of knowledge by affording them the use of material for investigation, laboratories and appliances ; nor have we been slow to stimulate original work in connection with our own collections and to promote the publication of the results reached by our investigators. But I regret to confess with a feeling of disappointment that when I examine the history of the Indian Museum from the point of view of its third function as a possible powerful instrument for the instruction of the public, I cannot say that the fullest measure of success has been achieved. In so far as the third function is concerned, the Museum may be regarded, first, as an adjunct to the Class Room and the Lecture Room ; secondly, as a bureau of information ; and, thirdly, as an institution for the culture of the people. A considerable measure of successful work has been accomplished in each of these directions within the limited means at our disposal ; but these are all matters of vital importance for the promotion of which further determined effort must be made. If we desire to furnish to the advanced or professional student materials and

opportunity for laboratory training, or if we desire to aid the teacher of elementary, secondary, or technological knowledge in expounding to his pupils the principles of Art, Nature and History, our scientific staff must be materially strengthened, for it would be most disastrous to the success of the institution as an instrument for the Advancement of Learning if our officers were seduced away from their legitimate work of extending the bounds of knowledge. Then, again, it is unquestionably our duty to do our best for the culture of the public, through the display of attractive exhibition-series, well-planned, complete and accurately labelled, and thus to stimulate and broaden the minds of those who are not engaged in scholarly research. Here, also, for lack of funds we have not been able to arrange our public galleries as effectively as those of the great Museums of England, America and other civilized countries. But I am bound to observe that the extent of our effort in this direction has not always been correctly appreciated, and the numerous guide books, which have been prepared from time to time with considerable labour, have not very often received the recognition they deserve. I desire, consequently, to emphasize the urgent need for the improvement of our public galleries, and, generally, for the adoption of all necessary steps to enable us to fulfil adequately our function as one of the most powerful agencies for the culture of the public and for the instruction of the advanced or professional student. For this purpose, we can confidently claim the assistance, not merely of the Government but also of the generous and enlightened aristocracy throughout the country. It is really not creditable for us that the Indian Museum should occupy the singular position of an institution of its type, the paramount claims of which upon public munificence are not duly recognized. We have never lacked a constant succession of distinguished workers, and it is a matter of legitimate pride and satisfaction to all of us that the interests of the Museum are entrusted to a band of devoted and enthusiastic

investigators, amongst whom we are able to count scholars of the stamp of Mr. Hayden, Mr. Hooper, Dr. Gage, Dr. Spooner, Mr. Percy Brown and, last but not least, Dr. Annandale who has been most unfalteringly jealous to maintain the high tradition of the institution. The accomplishment of our work is safe in their hands ; what they require is adequate funds for the full development of the institution as also genuine recognition of their labours, not only by the State but also by the educated and cultured public.

ASUTOSH MOOKERJEE.

BENGAL'S POET LAUREATE.

BY ANNA ROSS MACIVOR.

“**E**AST is East, and West is West” : it is this very difference—so unnecessarily harped upon, as if these words of the nonchalant poet were words of a prophet, never to be called in question any more forever—that gives piquancy to the meeting of the twain, and that has caused the *Gitanjali* of Mr. Rabindra Nath Tagore to be hailed with such delight by the literary critics of Europe. It is but human that the palate of the critic should ache for a new savour, and here he has found it. Perhaps no book published in England in 1913 was greeted with more surprise and pleasure than these translations of poems which, written in the first instance for the poet's own countrymen, and touching immediately a sensitive chord in their heart and imagination, have how been addressed to a wider, more cosmopolitan circle. By some intuitive sympathy, some instinctive conviction that what appeals as true to one race will also appeal to other races, Mr. Tagore felt impelled to sing his songs in another tongue, certain that among a wider audience they would find a response. And such has been the case : * “They reveal an influence singularly in touch with modern thought and modern needs” says one reviewer. And the form likewise is pronounced to be almost flawless measured by the canons of poetic taste : “It is a book of supreme beauty ;” “of trance-like beauty,”—these are expressions used by some of the most fastidious of judges.

To find a breach in the dividing barrier of an unknown tongue ; to pass through it and discover on the other side men of like passions with ourselves yet whose thoughts

* Since these words were written the Nobel Prize for Literature has been awarded to Mr. Rabindra Nath Tagore.

are clothed in a dress so strange and fascinating as to make them appear like something altogether new, is always one of the most pleasurable experiences, and one which, in these days when the literature of every nation is being exploited by those whose business it is to provide the reading world with a new sensation, has grown rarer. *Gitanjali* bids fair to create in England an enthusiasm such as was called forth by the Rubaiyat of Omar Khayyam when Fitzgerald brought it within the ken of the English-speaking world. And there is this interest added to the writings of the Bengali poet, that they have not been unearthed from old, hidden treasure, but are freshly minted in the mind of one still living and in the heyday of his power. Further, and this is very rare, the weaver of spells in the Bengali tongue has proved himself a master of the magic word in English also, and these translations, prose in form only, are instinct with poetic beauty and expressiveness—"so perfect is the mastery of the verbal and rhythmical resources of our language."

One is led to think that it was the English poets who first inspired Rabindra Nath Tagore: that in this "song-offering," in a foreign tongue he is paying back a debt which he owes to that tongue, but paying it generously indeed for he has increased its value manifold with treasures from sources of which he has found the key. It is a real meeting, yes and *mingling* of East and West that is revealed here. Echoes of the nineteenth century poets, especially, can be heard chiming with the agelong thought of India. This resemblance may be only apparent since all poets, seeing the land that is afar off, are apt to tell of it in the same language; but one is reminded of Shelley, Tennyson, Swinburne, Francis Thomson, Maeterlinck, and others, and the likeness does not seem merely accidental. No one will attempt to deny that the quickening of Bengali literature, so noticeable in the nineteenth century, is due largely to the stimulus which came through a widespread familiarity with Western literature. And the English language

was the channel by which the new influence entered. Mr. W. B. Yeats in a conversation with a Bengali gentleman, quoted in his Introduction, said: "For all I know, so abundant and simple is this poetry, the new Renaissance has been born in your country and I shall never know of it except by hearsay." This Renaissance, which has indeed come to pass, might well, without loss of dignity, count the English tongue as in a sense its mother, or at any rate its foster-mother, and another "Bande Mataram" might be composed to hymn this nurturer of the new consciousness which is alive in Bengal to-day. Writing of the Mediæval Renaissance, Walter Pater says: "There come from time to time, eras of more favourable conditions in which the thoughts of men draw nearer than is their wont, and the many interests of the world combine in one complete type of general culture. The fifteenth century in Italy is one of these happier eras, and what is sometimes said of the age of Pericles is true of that of Lorenzo:—it is an age productive in personalities, manysided, centralized, complete. Here artists and philosophers and those whom the action of world has elevated and made keen do not live in isolation, but breathe a common air, and catch light and heat from each other's thoughts. There is a spirit of general elevation and enlightenment in which all alike communicate." To think for a moment is to realize the aptness of these words to describe the modern thought-life of Bengal, as it is expressed in literature and art, and it is easy to call to mind great names which represent personalities free, joyous, and complete around whom that new life has centred.

This Renaissance has awakened the Indian mind more fully to the poetical resources of its own languages. In Bengal the merely imitative stage, inevitable on a first acquaintance with English and all that became available through English, may be said to have passed, and in the reaching of a new stage Rabindra Nath Tagore has been one of the great forces. Of high birth, young, precocious,

possessing great attractiveness of person and manner, and carrying lightly his many gifts of artistic power, he was the very hero that the romantic enthusiasm of the new movement demanded. And he rose to the height of that demand. One pictures him as gathering round himself a circle of admirers ; one might almost say devotees : such as a somewhat similar figure in literature, the beloved Robert Louis Stevenson, attracted and held. The admiration became something of a cult, to the indignation of the conservative stylists wedded to the austere dignities of the old "pure language." With a boldness such as Dante showed when he made the language of the people; the chosen vehicle of his greatly daring imagination, Rabindra Nath Tagore sang and wrote for Bengal in words which even the illiterate might understand. If time-honoured restraints hampered his expression, he flung them aside, believing that new life means new forms, and the new wine must be put into new bottles. He has even been accused of using language so colloquial as to be no better than slang. Of this of course few but the Bengalis themselves are able to judge.

Alive as he is to the influence of the West his mood is yet that of the East and has become more so as he has passed through different phases. Especially is this true of *Gitanjali*. The temptation which is prone to happen to young poets to whom fame comes early—to develop preciousness of style has left him: "My song has put off her adornments," he says, and a confession is implied that he has become aware of a desire in earlier writings to excite admiration by ornaments and poetic conceits. In *Gitanjali* the mood betrayed is one of meditation, of recollectedness, of impassioned worship: a mood akin to trance and ecstasy. It seems very natural that these poems should come to their own by way of the Irish poetical movement of which Mr. W. B. Yeats is the outstanding figure. The poetry of the New Irish School demands a certain temperament for its understanding, or at least a mood, which renders the listener susceptible to an eerie and romantic

quality which it possesses. Those who are incapable of this mood are outside its influence to a great extent. It is this fact, one fancies, that forms a link between the Celtic and the Oriental poet. The observer of artistic sensibilities realizes that in India music and poetry and eloquence of speech exercise a spell over men in a far greater manner and degree than they do in the matter-of-fact West. It has been said of Mr. Tagore's poems "They demand a certain surrender" and this surrender all are not willing to make, or capable of making.

Persons dedicated to the life of action, men of affairs, are afraid to yield themselves absolutely to the hypnotic power of the arts, or even of the religious mood, and are apt to regard the saint in trance before his symbol and the sensitive soul for whom thought becomes suspended under the sensuous charm of music and art as mere weaklings. Mr. Yeats writes of those who fight and make money and fill their heads with politics while India has been "content to discover the soul." For such the arts are merely a recreation and not a transforming force. The writer of *Gitanjali* shows no such hesitation but appears to yield himself absolutely to the poetic trance. In the land of *Yoga* it seems to the poet the only way to vision. But the Western mind is still rooted in a conviction that, in a world that is actual, to live too much in the unseen is to escape from a battle to which the best that is in us calls us forth. Our poets and artists, and we ourselves, coin new terms of abuse in which to stigmatize the so-called typical British character: materially-minded, unimaginative. To such we are people without vision perishing with our hand full of the worldly goods which we have clutched; and, while the Occidental so characterized wavers under this storm of reproach and stands amazed and doubting, the lands that have dreamed and striven to see the invisible do not merely turn in their sleep but rise and shake off the fetters of slumber and seize the treasures from his listless hands.

What does it mean? Life is not all action, nor all dream. Those who toil must sleep and those who sleep must wake. Perhaps it is the turn of the West to meditate again, to become aware once more of the mystery that enfolds life; a return to the sense of that mystery is what we need according to the Irish poets. To complete our humanity we must have in our minds

Magic casements, opening on the foam
Of perilous seas, in fairy lands forlorn.

In this book Mr. Yeats has discovered a whole people still in this mood and a poet with power to cast over their minds the mighty spell. "These lyrics," he says, "display in their thought a world I have dreamed of all my life long." And, "yet we are not moved because of its strangeness, but because we have met our own image, as though we had walked in Rossetti's willow wood, or heard, perhaps for the first time in literature, our voice as in a dream." It is true that the Celt in India feels himself curiously at home. Linked as he is by a very ancient language and tradition to a remote past, it is possible that he has been able to preserve unmixed in his own nature some of those family characteristics which distinguished the original Aryan stock before it scattered from its first territory. For the same reason the Celt feels himself at times an alien among the most typical races of the West and keeps silence about his dearest dreams and sentiments. The recognition of kindred feeling expressed in these words of Mr. Yeats will find a response from many an Irish, Welsh or Gaelic Celt in India.

Mr. Tagore is a people's poet. One wonders if his popular designation "Robi Babu" has merely an accidental resemblance to Scotland's loved name Robbie Burns, for he holds a similar place in the hearts of the Bengalis. "I read Rabindra Nath every day" is the confession of Mr. Yeats' Bengali friend. The resemblance does not extend in every direction. The philosophic, cultured mind of the Bengali poet covers wider regions than Burns with his hand on

the plough and his heart in the soil could enter. Mr. Tagore sings for a people who for centuries have thought wide thoughts, and of whom the least cultured apprehend the invisible in the actual and regard the world as dream. And yet the love of earth is here: the smell of the good soil after rain; the song of winds and rivers; sunshine and starlight; the springing flowers and falling leaves; and all that makes the passing of the seasons an unending drama of pleasure and sadness. The beauty of woman too is here. She passes with quiet feet and hidden face through these poems as woman passes silent and veiled through the households of *Bharat Barshiya*, carrying her share of the world's sorrow with pride and self-restraint. "Yet shall I bear in my heart this honour of the burden of pain, this gift of thine." Here she is but a symbol of the soul, but honoured in being thus used. In this lyric both the suffering and the greatness of the women of India are depicted with surpassing beauty and truthfulness.

Judging of them as religious poetry one would characterize these lyrics once more as expressive of a mood, a "*weltanschauung*" which is peculiarly Indian; and in spite of the penetrating and revealing gift displayed in them there is something to which the normal Western mind, or at least the average Western mind, hesitates to commit itself. To arrive at the degree of self-consciousness manifested in them seems to be something to be avoided rather than striven for. It is true that endless confusion and misunderstanding arise from the different meanings which may be attached to such words as "finding oneself" "escaping from self" "finding the self" and so on. A deplorable vagueness has gathered round phrases of this order, and their meaning, when used in much current literature, is very far from clear. But it is not unfair to say that in the most of these lyrics the reader finds only the poet and the Unknown to whom he speaks.

To enter into the poems you must take the place of the singer and become acutely aware of yourself and that Other to whom the songs are addressed. The world of humanity is shut out. The soul is conscious only of its own destiny. It is the mental state of the *Yogi*. Just this "surrender" it is which many shrink from making, realizing that however great are the obstacles which come between the soul and God in the world of human service, even greater are the dangers that lie in wait to attack the soul that has shaken off the bonds of human fellowship. The poet himself has met these dangers.

"I came out alone on my way to my trust. But who is this that follows me in the silent dark ?"

"I move aside to avoid his presence but I escape him not.

"He makes the dust rise from the earth with his swagger; he adds his loud voice to every word that I utter.

"He is my own little self, my lord, he knows no shame; but I am ashamed to come to thy door in his company."

This humiliating intrusion of self is an experience to which every mystic will own.

Perhaps these poems will be of greatest service to the West and especially to that country into whose mother tongue they have been rendered, bringing as they do a call to meditation in a world too deeply plunged in activity. For India, so long absorbed in meditation, it may be that a call to action is the message most greatly needed, that the "silent and overflowing leisure" in which the poet sings may give place to the life of doing, and that the ideal expressed in one of the poems may be realized, the poem in which he has perhaps struck the highest note of all; a note different from the musing tenour of the whole:—

"Leave this chanting and singing and telling of beads!
Whom dost thou worship in this lonely dark corner of
a temple with doors all shut? Open thine eyes and see
thy God is not before thee!

“He is there where the tiller is tilling the hard ground and where the pathmaker is breaking stones. He is with them in sun and in shower, and his garment is covered with dust. Put off thy holy mantle and even like him come down on the dusty soil!

“Deliverance? Where is this deliverance to be found? Our master himself has joyfully taken upon him the bonds of creation; he is bound with us all for ever.

“Come out of thy meditations and leave aside thy flowers and incense! What harm is there if thy clothes become tattered and stained? Meet him and stand by him in toil and in the sweat of thy brow.”

These great and beautiful words have already been learned by heart by many in this province. Perhaps in the days to come they may be quoted as a hymn of prophecy, foreshadowing that spiritual Dawn which must follow surely on the intellectual re-births of the present day, and has even now perhaps begun to shine.

ANNA ROSS MACIVOR

SOME TOURS IN SIKHIM.

BY LIEUTENANT-COLONEL W. J. BUCHANAN,
C.I.E., I.M.S.

We "Journeyed over steep Tendong
And through the vale of Teesta fair,

To breathe the air of Sikhim free
To wander by her purling rills
And seek the beauty of her hills
The blueness of her sky."

(*Lay of Lachen.*)

THE writer of these pages having had the fortunate opportunity of being able to make frequent journeys in Sikhim has compiled the following account in order to encourage others to do the same.

An Ex-President of the Alpine Club once rather scathingly stated that among dwellers in Darjeeling a fall over a *khud* is considered to be mountaineering. However exaggerated this remark may be, or however unfair to busy officials or to those recruiting their health after the heat of the plains it is nevertheless a fact that but few of those who visit the "Queen of Hill Stations" avail themselves of the advantages which lie at their feet for touring in one of the most beautiful and accessible of hill countries.

The use of the word "mountaineering" above must not be allowed to convey a false impression. The present record has no intention of touching on mountain climbing : it is merely a narrative of many walks and rides through Sikhim.

The following tours or journeys through Sikhim are here described :—

I. A week-end trip to Namchi Monastery. II.—The various routes to Gantok, the Capital. III.—The circular tour to Phalut and through Sikhim. IV.—The circular tour to the Tibet passes, Nathu La and Jelap La.

Before however we describe these tours in detail some description of the State of Sikhim, its history, its fauna and flora, and its great mountains, is necessary for a thorough appreciation of the many tours which might be made in this ever-delightful country, well called "The Switzerland" of the Himalayas.

THE SIKHIM STATE.

Beyond the northern boundary of the district of Darjeeling the great main chain of the Himalayas throws out southwards two enormous spurs, the Singalila range and the Chola range. These lofty barriers enclose three sides of a gigantic amphitheatre, hewn as it were out of the Himalayas and sloping down to the plains on the south. The steps of this amphitheatre make up the territory known as Independent Sikhim.

It is bounded on the north-east by Tibet; as the Anglo-Chinese Convention of 17th March 1890 lays down, "the boundary shall be the crest of the mountain range separating the waters flowing into the Sikhim Teesta and its affluents, from the water flowing into the Tibetan Mochu and northwards into the rivers of Tibet." Bhotan bounds Sikhim on the south-east and on the south lies the British district of Darjeeling. In earlier days Sikhim⁶ included the Mochu valley of Chumbi and the Tambur river valley of Eastern Nepal.

The great river of the Sikhim is the Teesta, which flows through the country and has a course of about ninety miles in an almost straight line. The Teesta with the Mochu,* of Chumbi and Bhotan, and the Tambur of East Nepal are the three great rivers of this portion of the Eastern Himalayas.

On or near the outer range are the great mountains of eternal snow and the great passes which lead from

* AMMO River. Chu = River.

Sikkim into Tibet and the Chumbi valley.* The peaks enumerated in the footnote form the great range or group of Kinchenjunga. Still further north-west are seen rows of lower snowclad and rocky peaks till we meet the great Everest Group, which we shall describe fully below.†

The pass of Chiabunjan (10,320 feet) which lies to the north of Phalut and on the north side of Mount Singalela is the main pass from the eastern valleys of Nepal into Sikkim. The Nepal Boundary road which runs along the

Commencing from the south-east the following mountains and passes are enumerated:—

Richi La.—10,370 feet, the trijunction point of Darjeeling district, Sikkim and Bhotan.

Lingtu.—12,617 feet, scene of the fight with the Tibetans in 1888 (between Gnatong and Sedonchen).

Gipmochi.—14,523 feet, the trijunction point of Sikkim, Bhotan and Tibet, easily recognized by its shape.

Pembiringo Pass.—14,400 feet, into the Mochu valley.

Jelap La.—14,390 feet, the most frequented pass into the Mochu valley of Chumbi (8 miles north of Gnatong).

Nathu La.—14,400 feet, leading direct from Gantok into the Chumbi valley.

Yak La.—14,400 feet, close by the Nathu La.

Cho La.—14,550 feet. This leads more directly into Chumbi and goes direct to Phari Jong. It was formerly the main route from Sikkim to Tibet. The name "Chola" is also given to the fine range of lesser snowy heights east of the great Kinchenjunga range.

"The frosted peaks of Chola."

Tanker La.—16,000 feet, leading out of the Lachung Valley.

Gora La.—17,000 feet, also out of the Lachung Valley.

Dongkia La.—18,100 feet, joins the upper tracts of the Lachung and Lachen Valleys.

Kongralama Pass. 16,000 feet, is the direct pass from Sikkim to Kambajong in Tibet.

Keeping in the same direction from east to west we may now enumerate the great peaks which make up "the glory of the snows."

Name of Peak.	Height above sea level.	Distance from Darjeeling in a straight line.
Kinchenjau	22,509 feet	70 miles
Lama Amden (D3)	19,210 "	51 "
Chomiomo	22,385 "	72 "
Siniolchum (D2)	22,570 "	47 "
Narsing	19,130 "	32 "
Simvoo ..	22,500 "	45 "
Jubonu ..	19,450 "	33 "
Pandim	22,010 "	37 "
Kinchenjunga	28,146 "	47 "
Talung Saddle	22,130 "	43 "
The Dome	?	39 "
Kabru ...	24,002 "	40 "
Little Kabru	21,970 "	40 "
Janu ...	25,294 "	47 "
Kang Peak	18,300 "	35 "

* La = pass (Alpine Col.).

† As the direction in which to look for the Everest group is not always known, the following "tip" is given. Point with the index finger of the right hand due north, or towards Kinchenjunga, the thumb, held at somewhat less than a right angle, will point in the direction of Everest.

ridge separating Darjeeling District from Nepal is well marked with boundary pillars. It is on this ridge that the well-known halting places Tonglu (10,074 feet), Sandakphu (11,929 feet) and Phalut (11,811 feet) are situated. This spur or range has been variously named; Hooker called it the Singalela Range and the mountain (12,161 feet) beyond Phalut is usually called Mount Singalela.

The distances given in the table above show why some of the nearer and lower mountains look so much higher and imposing than the more distant and loftier peaks when seen from Darjeeling and neighbouring places in Sikkim; e.g., Narsing in many places almost dominates the scene, yet it is really over 3,000 feet lower than the more distant Chomomo or Kinchenjau.

We must now very briefly describe the appearances of this grand chain of snows and for convenience we shall begin in the north-west at Kang peak and go eastwards to Kinchenjau.

The Kang Peak. This is a huge ridge or mountain mass 18,300 feet (on the extreme left of the snow view as seen from Darjeeling.) It is a straight topped narrow ridge with precipitous snow-covered sides. It is very well seen from Pemiongchi and from Kewsing. Beyond it are several snow peaks of about 20,000 feet, one on the extreme left is known as *Nango* (20,225 feet) which lies 16 miles beyond Kang. (See Hooker, Ch. XI.)

Janu (25,294 feet). It is always imposing. It is well seen from Darjeeling, but from Pemiongchi and from Kewsing it is hidden behind Kabru, and Little Kabru is often mistaken for it at these points. Hooker and Freshfield, who saw Janu from Chunjerma Pass, are enthusiastic about this great peak; "the most magnificent spectacle I ever beheld" wrote Hooker (*Himalayan Journals*, Ch. XI., p. 185). "From whatever side it is viewed it rises 9,000 feet above the general mountain mass of 16,000 feet elevation, towering like a blunt cone, with a short saddle on one side that dips in a steep cliff."

Little Kabru, 21,970 feet, is next seen, nearer to the view and between Janu and the mighty Kabru.

Kabru, 24,015 feet. The outline of this magnificent mountain is well known. Its ridge,* like the slightly sagged ridge-pole of a tent, is seen from most accessible points of view. From Pemiongchi Kabru easily takes first place. About a mile or so in front of it (and slightly to the right in the view) lies the great rounded mass of the *Dome* partly filling up, as it were, the great hollow of Kabru. The Dome is very clearly seen from Pemiongchi. Beyond Kabru and between it and the left buttress of *Kinchenjunga* can be seen the pointed *Talung Peak* (22,130 feet). On the left of Kabru is seen the great *Rathong Glacier*.

Kinchenjunga, 28,146 feet, the glorious monarch of this range and next to Mount Everest and Mount Godwin-Austin † (in North Kashmir,) the highest mountain in the world, forms the majestic centre of the view as seen from Darjeeling. Three of its five peaks are visible; the peak on the left is the highest (28,146 feet), that on the right is somewhat lower (27,620 feet). "Four great glaciers radiate directly from Kinchenjunga, they are the Zemu glacier, 18 miles long, and the Talung glacier both draining to the Teesta; the Kinchen glacier, 15 miles long, and the Yalung glacier, both draining to the Arun and the Kosi in Nepal." (Freshfield, p 254.)

Pandim is some 10 miles nearer to Darjeeling than Kinchenjunga. It is 22,010 feet high. On its right can be seen Simvoo (a triple peak when seen closer to) 22,500 feet, which however is 8 miles further away than Pandim. It is seen from Darjeeling as a distant round topped mass.

Narsing 19,130 feet. This is the nearest of the great peaks to Darjeeling. It is especially well seen from Pemiongchi and from Kewsing bungalows.

* Colonel Tanner pointed out that Kabru is really a flat tableland, of which we only see one edge, the ridge, from Darjeeling.

† "We cannot state with certainty which is the higher of the two." Burrard: *Hig. Peaks of Asia*.

Jubonu, 19,451 feet, is recognized by the deep grooves down its side, gouged out as it were. Between Narsing and Jubonu the round top of Simvoo can be seen, behind the two and somewhat nearer (in the view) to Narsing.

Siniolchum (D2 of the Survey) 22,570 feet. It has been called by Freshfield the "Jungfrau" of the Himalayas. The most beautiful peak in the whole range. It is very well seen from Gantok and will be described below.

Chomiomo. This mountain rises to 22,385 feet, it is however far away, 72 miles from Darjeeling. It can be seen well to the north-east and to the left of Mount Lama Amden and Kinchenjau.

Lama Amden, 19,210 feet, lies between Chomiomo and Kinchenjau, but being much nearer it is more imposing than the loftier peaks on either side. We never had a better view of Lama Amden than from Temi Bungalow, where it stands due north. Its tongue-like peak swathed around its base with snowy mountain masses makes it easily recognized.

Kinchenjau, 22,509 feet. This hill is 70 miles off from Darjeeling, but its characteristic flat top (like a milkmaid's stool) can be seen on any clear day from Darjeeling.

Continuing the view (from Darjeeling) further eastwards from Kinchenjau we see a fine row of rocky and snowclad peaks. They would be magnificent if seen elsewhere than in the immediate neighbourhood of the greater Kinchenjunga group. This range is usually called the Chola range. It runs south-east to Mount Gipmochi on the border of Bhotan and contains the great Tibet passes already mentioned.

THE EVEREST GROUP.

It remains to describe the great Everest Group, which lies in Nepal and Tibet, north-west of the Kinchenjunga range, with which it is connected by a range of lower hills.

Outside of the forbidden lands of Nepal and Tibet the best (accessible) view of Mount Everest can be got from the rocks above the Sandakphu Bungalow (11,929 feet).

As we march along the Nepal Boundary road nothing of the Mount Everest Group is seen from Tonglu ; but between the 20th and 21st mileposts on the road to Sandakphu our first sight of the great group is obtained, just to the left of the Sandakphu hill. This group once seen can never be forgotten. Mount Everest is 107 miles off from Darjeeling and just 90 miles from Sandakphu. It is further away than the two great peaks which seem to guard its flanks, hence grand as it is it is less imposing than the nearer and massive Peak XIII, or *Makalu*, the "armchair" appearance of which at once arrests the attention.

The panorama as seen from Sandakphu on a clear day is as follows :—

Away to the north-west (the left of the scene as we view it from Sandakphu) we see an enormous fortress-like mass of pure snow, with lofty perpendicular sides and a long level ridge to which no name has been given, next comes a long row of sharp pointed low snow-covered peaks, then come the great peaks which form the Everest Group.

This great group of lofty mountains lies 63 miles west of the Kinchenjunga group and consists of no less than nine great peaks all over 24,000 feet. As seen from Sandakphu three of the great peaks seem close together, *viz.*, Mount Everest 29,002 feet in the centre ; Makalu 12 miles to the south-east (27,790 feet), and 16 miles W.-N.-W. of Everest another great peak (T^{45}) with a height of 26,867 feet. The other six great peaks close by are (1) T^{57} (25,990 feet) 13 miles W.-N.-W. of Everest ; (2) B^{782} (25,909 feet) 14 miles W.-N.-W. of Everest and 2 miles from T^{45} ; (3) T^{42} which is 25,433 feet high and stands 20 miles W.-N.-W. of and 3 miles from T^{45} ; (4) N^{53} (25,413 feet) 12 miles E.-S.-E. of Everest and 2 miles from Makalu ; (5) B^{783} (25,202 feet) which is 15 miles W.-N.-W. of Everest and 3 miles from T^{45} ; (6) Chamlang (XIV) which is 24,012 feet high and stands 15 miles S.-S.-E. of Everest.

Colonel Burrard, R.E., writes:* “Everest stands alone on the Tibetan side of the crest, and no other great peak is within 10 miles of it, but five great peaks are crowded together 15 miles to the W.-N.-W.” Lieutenant-Colonel Ryder, R.E., who describes Mount Everest as seen from Tibet,† 80 miles to the north of Everest, says: “It stands alone in magnificent solitude,” but from Sandakphu it seems rather behind Makalu, which stands 12 miles in front of it, and is the more conspicuous of the two. The elevation of Mount Everest, or Peak XV., was first observed in 1849, but its height was not computed till 1852. As regards its name Britishers may be well content to have this greatest of peaks called after an Englishman, Sir George Everest, a former Surveyor-General. It is a good alpine custom to retain the local names of peaks; but it is clear from Colonel Burrard’s account that there is no local or native name for Everest. Waddell and Freshfield have favoured the name “*Chomokankar*,” but the Surveyors attached to the Tibet Frontier Mission of 1904 found no such name applied to the Great Himalayan peak, and as for the other proposed name “*Gourisankar*,” (used among others by Conway) it is now certain, since the visit of Captain Wood, R.E., in 1903 to Kaulia, near Khatmandu (at Lord Curzon’s request), that the mountain locally called “Gaurisankar” is a quite separate peak, 30 miles away from Everest; it is a double peak (height only 23,440 feet) and is called Peak XX in the Trigonometrical Survey.‡

As regards the height of Everest and the other great peaks “all observations are liable to error, no telescope is perfect, no level is entirely trustworthy, no instrumental graduations are exact, and no observer is infallible,” so we may well agree with Colonel Burrard in using 29,002 feet

* The High Peaks of Asia, page 37.

† For a description of Everest from Tibet see also Captain Rawlings’ “*The Great Plateau*.” Captain Rawlings accompanied Lieutenant-Colonel Ryder.

‡ It is also clear that H. de Schlagintwint mistook Makalu for Everest and in his well-known picture he certainly painted Makalu not Everest.—Burrard: *High Peaks of Asia*, page 21.

as "the long adopted and well-known value" of the height of Everest.

The other great peak of the Everest group is Makalu (or Peak XIII). It is often mistaken, as above said, for Everest, as from Sandakphu and from the golf links at Senchal it is the more conspicuous object. It is easily recognized from its hollow or "armchair" appearance. This remarkable cup or hollow extends about one-third down its slope and is filled with great masses of glacier ice.

Before leaving the subject of the heights of these great peaks it may be mentioned that of the 75 great Asian peaks over 24,000 feet high, no less than 32 appear in the Nepal Himalaya and many are visible from different parts of Sikkim. Burrard and Hayden (*High Peaks of Asia*, 1907) divide the great peaks into five orders of magnitude, *viz.*, I, those over 28,000 feet, Everest; K-2 (or Mount Godwin-Austin in Karakoram), and Kinchinjunga (Peak X) (or left); in Class II (between 27,000 feet and 28,000 feet) the right or peak 2 of Kinchinjunga and Makalu. In Class III (between 26,000 feet and 27,000 feet) there are 11 peaks, of which 6 are in the Nepal Himalayas, *viz.*, Peak T¹⁵ (26,867 feet, 16 miles W-N-W of Everest); Dhaulagiri 26,795 feet (180 miles west of Everest), Peak XXX (133 miles west of Everest); Peak XXXIX (26,492 feet) 159 miles west of Everest; Gosainthan (26,291 feet) 60 miles west of Everest; Peak XXXIV (26,041 feet) 159 miles west of Everest. In Class IV (between 25,000 feet and 26,000 feet) there are 32 known peaks of which 13 are in the Nepal Himalaya. In Group V (between 24,000 feet and 25,000 feet) there are 27 peaks of which nine are in the Nepal Himalaya.

In the Karakoram and Kashmir ranges of the Himalayas are many mighty peaks, of which the greatest are K-2 (or Mount Godwin-Austin), 28,250 feet; Nanga Parbat, 26,620 feet; Gasherbrum, or K-5, 26,470 feet (with 3 other

peaks all over 26,000 feet) ; Masherbrum, two peaks, the east or higher being 25,660 feet ; Rakaposhi, 25,550 feet.

We may compare these Himalayan giants, 75 of which are over 24,000 feet with the other great mountains of the world, *viz.*, Aconcagua 23,393 feet (climbed by Zurbriggen in the Fitzgerald Expedition to the Andes) ; Chimborazo, 20,498 feet (Whymper) ; Cotopaxi, 19,613 feet (Whymper) ; Antisana, 19,335 feet, in South America. In Central Africa Killimanjaro is put at 19,715 feet ; Mount Kenya at 17,200 feet. In Mexico Popokatapetl is given as 17,720 feet ; in North America, Mount McKinley is put as 20,464 feet ; Mount Elbruz in the Caucasus is 18,517 feet. In Europe Mount Blanc is 15,780 feet and Monte Rosa is 15,217 feet. In New Zealand Mount Cook is 12,349 feet and in the British Isles Ben Nevis is 4,406 and Snowdon 3,560 feet.

It must be remembered that the imposing appearance of a peak depends upon the distance from the observer and on the amount of its slope exposed to view. No peak in Asia in this respect equals the glorious Nanga Parbat as seen from the right bank of the Indus, where no less than 23,000 feet of slope is exposed to view. In the Nepal Himalaya from Sandakphu we can see 12,000 feet of the slope of Everest, 9,000 feet of the slope of Makalu and 16,000 feet of Kinchinjunga.

From Sandakphu, only 35 miles from Darjeeling, we therefore see the first, the third and the fourth highest mountains in the world and more than a dozen peaks higher than any others in the world.

These grand summits may be "useless," as Gaultier said they "only have their beauty." We may quote Gaultier :—

Les Grand Sommets.

" Ils ne rapportent rien, et ne sont pas utiles.


" Ils n'ont que leur beaute. Je le sais c'est bien peu;

" Mais moi je les prefere aux champs gras et fertiles

" Qui sont si loin du Ciel, qu'on y voit jamais Dieu."

Other lesser mountains which we meet with in our tours are *Mainon*, 10,637 feet, and *Tendong*, 8,676 feet, both conspicuous features in the landscape around Darjeeling—both of these are on the north-south ridge which runs through Central Sikhim separating the valley of the Great Rungeet river from that of the Teesta.

The “perpetual” snowline in Sikhim is put at 16,000 feet, but some glaciers descend about 1,000 feet lower and formerly must have descended much lower still, as for example Lachung (altitude 8,790 feet) stands at the foot of an immense terminal moraine.

The valleys of Sikhim are of two kinds, a few glacial valleys like Lachung and Lachen which are “open and  shaped.” After the retreat of the glaciers the streams which took their place, under an annual rainfall of from 120 to 160 inches, cut many valleys down deeply into “V-shaped” gorges, and the striking distinction between glacial and river valleys was effaced.

LAKES.

In this part of the Himalayas lakes are but few, we meet with only two or three in the tours here to be described.

One, the *Bidentzo* (the “Biddenmere” of Colman Macaulay’s *Lay of Lachen*), 12,700 feet, 3 miles north-east of Gnatong, 6 miles by road, at the east end of that long transverse troughlike swampy valley which runs between the foot of the ascent to the Nathu La to that of the Jelap La and is described below as the Kapup valley.

The Bidentzo lake is one mile long and about half a mile broad. It is one of “the best instances of a glacial lake in a valley whence a glacier has recently retired.” The other lake is *Changu*, 12,600 feet, 20 miles north by road from Gantok and about 6 miles from the foot of the ascent to Nathu La. Another small lake lies just at the beginning of the ascent to this pass.

FORESTS AND VEGETATION.

The forests of Sikhim are very extensive, and when the world has to turn to the Himalayas for timber these forests will have to disappear. Hooker has divided the vegetation of Sikhim into three zones,—tropical, temperate and alpine. A Botanist has calculated that there must be 4,000 species of plants in Sikhim ; Hooker himself collected 2,920 species.

Orchids are extensively represented by over 350 species, the most common genus being the *Dendrobium*, of which there are about forty species found. There are twenty species of bamboos and the elevation of any place might be roughly calculated from the thickness of the stems of the bamboo. The rhododendrons have been called “the glory of Sikhim ;” there are about 30 species, varying in size from *R. grande*, a tree 40 feet high, to the dwarf *R. Nivale*, only a couple of feet above the ground. Among the very numerous herbaceous plants we may mention the giant rhubarb (seen for example on the ascent to the Nathu La) *R. Nobile* ; it grows to 3 or 4 feet high and they have been pardonably mistaken for soldiers in the distance. Firs, pines, junipers are common in many places ; also maples, chestnuts, oaks and magnolias. The creepers are innumerable and wonderful.

Butterflies.—These insects are extremely common in Sikhim ; the Entomologist is referred to the *Sikhim Gazetteer* for a detailed description of them. We meet them in great numbers on the sunny cart road from Singtam to Gantok.

Birds.—Many travellers have remarked on the strange absence of birds in marches through Sikhim, but nevertheless they are profusely represented by over 500 species. (See Colonel Waddell’s descriptions in the *Sikhim Gazetteer*.)

Mammals.—There are about 80 species, but they are seldom seen. Snakes too are to be found. Sikhim is a poor country for sport, for though about fourteen species of game birds have been described they can only be found by the

patient and persevering sportsman. Pheasants, quails and hill partridges do exist ; the woodcock is a cold weather visitor. Bears and leopards are rarely seen. Marmots are not uncommon amid the bare rocky hills above 10,000 feet, as for example, on the ascents to the Nathu and Jelap passes. The musk deer remains always at very high altitudes and musk is a common article of trade over the passes. The *Serow*, *Gurial* and the *Burhel* are only found in flocks at very high altitudes.

HISTORY OF SIKHIM.

The early history of Sikhim is legendary and traditional and we need concern ourselves with nothing before the appearance of the Government of India on the scene.

The people are of various races and castes—Lepchas, Bhuteas, Limbus and many castes of Nepalis.

In olden days Sikhim was largely dependent upon Tibet ; till recent years the Raja lived at Chumbi and his family has largely intermarried with Tibetan women. While Chumbi remained thus, a sort of Hanover for Sikhim, the Nepali tribes not infrequently made raids into the country and into the *terai*. At the close of the Nepal War, in 1817, the Government of India intervened in Sikhim affairs with the result that the *terai* was restored to the Sikhim Raj, and by a treaty signed at the once important station of Titalya (in the Jalpaiguri district) the Government of India obtained the position of Lord Paramount in Sikhim. In 1834 certain Lepcha malcontents who had fled to Nepal, made a raid on the *terai* ; British aid was invoked, the Lepcha refugees were sent back to Nepal and as a reward the Sikhim Raj made over to the Governor-General the district of Darjeeling, and from that time dates the origin of Darjeeling as a summer resort and sanatorium. Fifteen years later the Political Superintendent, Dr. A. Campbell, I.M.S., and (Sir) Joseph Hooker, travelling with the permission of the Raj, were treacherously seized and made captive by the Diwan Namguay (called the *Pagla Diwan*). This

treachery was punished by the annexation of the *terai*, but the trouble continued and necessitated the despatch of an expedition under Colonel Gawler in 1860-61, who was accompanied by (Sir) Ashley Eden as Envoy. The troops advanced as far as the Teesta, whereupon a treaty was arranged at Tumlong in March 1861, which still regulates the relations of Sikkim with the Government of India. The Raja had to agree to live in Sikkim, free admission for travellers was given, and slavery was abolished.

In 1873-4 (Sir) John Ware Edgar visited Sikkim to better establish trade relations. In 1875 the late Raja died and the Deputy Commissioner of Darjeeling proclaimed the present Maharaja to be Raja of Sikkim in spite of an intrigue on the part of the pro-Tibet party to appoint a half-brother. Seven years later the question of trade relations with Tibet came to the front again; and Mr. Colman Macaulay of the Civil Service * met the Tibetan Officials at Giagong in North Sikkim. With the consent of China a mixed scientific and political mission was proposed and even organized, but was not proceeded with, largely to allay Chinese susceptibilities, aroused over the recent annexation of Upper Burma.

This forbearance on the part of the Government of India was, as usual, misinterpreted; the Monks assumed we were afraid of them; a Tibetan army actually invaded Sikkim, built a fort on the top of Mount Lingtu (12,617 feet) and occupied the village of Jeyluk, on the slope below, a dozen miles and more inside the Sikkim frontier. Then came the discovery of a secret treaty, that of Galing. Tibet became more aggressive and an expedition had to be undertaken. Sir B. Bromhead drove the Tibetans out of Jeyluk and the fort on Lingtu and Gnatong was occupied and more or less fortified. Nevertheless the Tibetans returned and actually attacked the fort at Gnatong on 22nd May 1888. They were repulsed

* The story is told in Colman Macaulay's *Lay of Lachen*, from which we have quoted above.

and the British force remained at Gnatong. In September of the same year (1888) the Tibetans entered Sikhim again, advanced as far as the Taku La, just above Gnatong, and here (it is said in one night) they built a wall two miles long on the top of the pass. General Graham with the Derbyshire regiment, the 32nd Pioneers and a new Goorkha battalion soon drove them off this pass, pursued them and bivouacked that night on the Jelap La.

In 1890 the Anglo-Chinese Convention acknowledged the paramount rights of the Government of India over Sikhim and our relations have been generally satisfactory ever since.

The present Maharaja was born in 1861, proclaimed Raja in 1875. His son and heir, the present Maharaja Kumar, C.I.E., has been educated at Oxford. He is an enterprising and accomplished youth and already has done much good to the State by the attention he pays to forestry and agriculture, the departments of State which have been assigned to him.

We trust these introductory remarks will not be considered tedious or irrelevant; they are necessary for understanding the various places of interest met with in touring through this delightful country.

We do not propose to describe prolonged or difficult journeys. Our appeal is rather to the "short-leave" man and the journeys here to be described need not take longer than a fortnight.

PREPARATIONS FOR THE JOURNEY.

At the present day Sikhim is very liberally provided with travellers' bungalows, most of them good and comfortable. In a list published by the Deputy Commissioner of Darjeeling, for the information of travellers, no less than 44 bungalows are mentioned. The roads and paths for a State with but limited resources are good and it must be said that the Sikhim Raj has well done its duty as regards roads and buildings.

The bungalows are sufficiently furnished; firewood is plenty. The traveller need bring nothing beyond his bedding, his clothes and his food.

In the Sikkim valleys rice, fowls and eggs may be obtainable, but we recommend the traveller to bring such requirements with him from Darjeeling. At Gantok mutton, fowls, bread, eggs and a few "oilman's stores" can be got. Mule transport would be excellent, but is little used. Most travellers trust to coolies. We recommend parties of not more than four persons; and for a 10 or 14-day trip of four persons six coolies per person ought to suffice; two for bedding and clothing, one personal cooly to carry camera, field glasses and thermos and three per head for the kitchen. Loads should not be too heavy, the coolies have to carry their own clothes, cooking pots and food and several of the marches are long and hot. Hill khitmagars (Re. 1-8 each per diem), a cook (Re. 1-8 per diem) and a sweeper (Re. 1 per diem) are also needed. A hill pony is a necessity (Rs. 3 or 4 per diem). We do not recommend any but the young and very energetic to walk all the way. To ride up hill and walk down will be found a useful division of labour between man and beast. For a party of four persons, for a 10 to 14-day trip, the cost should not exceed Rs. 14 per day, or, say, under £1 per day for each person.

As regards clothing it must be remembered that on most tours extremes of temperature may be met and on the same day's march the traveller will find himself cold on the top of a hill and an hour later hot and steamy at the bottom of a river valley. It is an excellent plan to march "in shirt sleeves" with a warm coat strapped on to the saddle to don at the higher elevations. Before leaving Darjeeling the traveller *must* book his bungalows at the office of the Deputy Commissioner and get passes for each (Re. 1 per person per bungalow). Two frontier passes (Re. 1 each for each party) are needed for entering and leaving Sikkim.

We may now proceed to give a detailed description of the trips or journeys which we have mentioned above. We shall first describe a short week-end journey.

I. A WEEK-END TRIP TO NAMCHI MONASTERY.

Namchi monastery can be seen on the slopes of Mount Tendong from the Mall at Darjeeling. The distance is 17 miles, so it is but one day's journey. The road leads down from the Chowrasta, past the regimental lines at Lebong. It then descends rapidly and is rough in places. We pass the Bannockburn and Ging Tea Estates and soon find ourselves near the Badamtam Tea Estate and close by the Dāk Bungalow (altitude 2,500 feet, 2 rooms and 3 beds). From the bungalow the road zigzags rapidly down to the river, 1,500 feet below. It becomes more and more steep till the Great Rungeet and the fine suspension bridge to Manjitar Bazar is reached. Close by a stream meets the Rungeet, this comes down the Rungmo valley, between Darjeeling and the Senchal ridge. The view of the Rungeet valley is very fine. A road runs down from Manjitar to the Teesta Bridge to be mentioned below.

Passing through the bazar the road to Namchi rises rapidly, the way is hot and the road rough and stony. We pass in due course two villages, Kitam and Mikk (the latter 3,700 feet altitude). We are now out of the heat, the path runs on steadily upward along a spur till we reach Namchi village, 5,200 feet. The bungalow is met with just before the village, it is pretty and comfortable (3 rooms and 4 beds).

At Namchi resides a Kazi, a sort of Magistrate Collector. The monastery is reached by a walk of 20 minutes up the hill above the village. It is not a great or important monastery; it is built and furnished like other Sikhim monasteries and is well worth a visit. Mount Tendong (8,675 feet) on the side of which this *gumpa* or monastery is built is sometimes called the local Mount Ararat, partly owing to its likeness to the traditional

engravings of Mount Ararat and also from an actual deluge legend. We can well understand how a big landslip could easily block either the Teesta or the Rungeet and cause widespread flooding. In such a case a high uplifted hill like Tendong would be a natural place of refuge.

The return to Darjeeling may be made by the same way or the traveller may follow the Rungeet to the Teesta bridge, or go over Mount Tendong to Temi and down the Teesta to the big bridge and thus back to Darjeeling *via* Pashoke.*

II. THE JOURNEY TO GANTOK.

There are two main routes to the Capital from Darjeeling—(1) *via* Namchi and Temi, (2) *via* Pashoke-Teesta Bridge, Rungpo, etc.

The Namchi-Temi route is the shorter, *viz.*, Namchi 17 miles; Temi 10 miles; Shamdong (Middle Camp) *via* Singtam, 12½; and to Gantok 12 more by cart road, *i.e.*, 51½; or by the Gantok “short-cuts,” say, 48 miles.

The Pashoke-Teesta valley route is longer but has the advantage of a good cart road for much of the way. It is Pashoke 17 miles; to Rungpo *via* Teesta Bridge 17½ miles; to Shamdong *via* Singtam 12; to Gantok 12; or by shortcuts 9 miles. Total 58½ miles or, say, 55 miles by shortcuts. Other routes may be taken, *viz.*, by Badamtam 7½ miles; Melli 11 miles; Rungpo 12 miles; Shamdong 12 and Gantok 12 or 9, *i.e.*, 54½ miles or 51 by shortcuts. A still other alternative is to go to Temi *via* Namchi, as indicated above, then Song 11 miles; Gantok 14 miles; or a total of 52 miles.

IIa. THE NAMCHI-TEMI ROUTE TO GANTOK.

We may first describe the Namchi-Temi route which can be done in three marches.

We have already described the journey to Namchi; from there we ascend to the left up over the left or

* (1) Darjeeling to Namchi 17 miles and back same way. (2) Darjeeling to Namchi, then to Temi 10 miles; to Rungpo 11 miles; to Pashoke *via* Teesta Bridge 14 miles; Pashoke to Darjeeling 17 miles.

western shoulder of Mount Tendong. As we go we may see the river gleaming silverlike in the deep valley and we can see the Kinchenjunga range to the north. About an hour and a half out from the start, we reach the top of the shoulder at a *chorten*, the path then winds down and down, till, at $7\frac{1}{2}$ miles from Namchi, we came to the Damthong crossroads. This place consists of a few huts and signposts, indicating that Damthong crossways is $7\frac{1}{2}$ miles from Namchi; $7\frac{1}{2}$ from Kewsing, and $2\frac{1}{2}$ miles down hill to Temi.

From Damthong after a slight rise the road winds down and down on the northern flank of Tendong and along this road we may get glimpses of the Kinchenjunga snows and due north the minor peaks of the Chola range. About 45 minutes walk from the crossroads we pass a big landslip—a village is passed 15 minutes later, from which a splendid view of the Teesta coming down from the north is obtained and a few minutes before we reach the bungalow we pass the luxurious and pretty house of a Scots Missionary.

The Temi Bungalow (altitude 5,000 feet, 3 rooms 4 beds) is well situated and commands a fine view of the Teesta Valley. Due north we see clearly the little known peak called Lama Amden (D3 of the Survey). This tongue-like peak, 19,210 feet, with a mass of snowy hills swathed around its base is particularly well seen from here.

Further East we can see the flat top of Kinchenjau. To the North-West is the Kinchenjunga group, and one's attention is at once called to a huge smooth snowy gap behind Kabru.

Leaving Temi we descend by a winding road towards the river Teesta (a shortcut is not to be recommended). In 50 minutes from the bungalow we meet milepost 26 and in one hour and a half we reach a small bridge over a picturesque and deep stony gorge. Thence we proceed by a shady path, up and down through bamboos, within sight and hearing of the Teesta, till at the 20th milepost we

come to the fine suspension bridge (not to be confused with the Great Teesta Bridge, 20 miles lower down).

Across this bridge, about 170 feet long, we meet two roads, one up the hill to Gantok *via* Song (see above), the other, down the river valley, goes *via* Singtam and the Cart Road to Gantok.

We shall follow the road to Singtam. It runs along the river for about half an hour, then we turn a corner on the left and reach the important bazar village of Singtam.

The teashops prove attractive to the coolies, but we hasten them on along the Cart Road. This Cart Road comes up from Siliguri in the plains to Gantok. It runs alongside of the rocky Roru river, the gradient is easy, but there is little shade from the hot sun. Five and a half miles up from Singtam we come to the Shamdong bungalow, perched high up on a spur; the 12th milestone is just on the road below. This halting place is also called "Middle Camp," and by the coolies "*battis lumbar*" (32), from the celebrated Pioneer regiment which built the road in 1888-1891.

Soon after leaving Shamdong we pass at a bend on the road the Pioneer's Tomb (dated 1891.) The road rises steadily but it is still hot. Just before we reach the 9th milepost a notice indicates the first "shortcut," down across a valley and the river. The coolies go this way, but most persons prefer to go on to the bridge, near the 8th milepost, from which the real Gantok "shortcuts" begin.

Crossing this bridge we follow the Cart Road for a few hundred yards, then we see a notice and a shortcut, up this we ride, it is not bad going, and in half an hour we see on a tree "4"; twenty minutes later, on the Cart Road, we meet another "4" milepost. The first "4" post refers to the shortcuts. We soon meet another and riding up it we can see Gantok, we then turn a corner and reach the Cart Road again. Before the town commences we find another shortcut, up to the bazar, the Dak Bungalow, the local hospital and the Post Office, all of which are close

together. The use of these excellent shortcuts saves over 3 miles on the journey. The *upper* shortcuts are really part of the road from Gantok to Pakyong (10 miles from Gantok.)

On our return from Gantok we may go back by the way just described or go *via* Teesta Bridge to Darjeeling (Gantok-Pakyong 10 miles, Rungpo 10 miles, Teesta Bridge 14 miles, Pashoke 3 miles and Darjeeling 17 more) or we may return by the Cart Road as far as Singtam and from thence to Rungpo, etc.

IIb. DARJEELING TO GANTOK *via* PASHOKE AND TEESTA BRIDGE (55 OR 58½ MILES.)

Counting the ride over Jalapahar to Jor Bungalow as 3 miles we have 14 miles more to Pashoke. From Jor Bungalow bazar the road turns off from the railway and runs below Senchal, past the big landslip of 1889, past the path leading to the picnic bungalow of Rungaroqn (5,700 feet, 4 rooms, but no beds.) Then comes "Three-mile-busti" (seen from Darjeeling); here the road crosses to the other side of the Senchal ridge, with fine views of the valleys towards the east. At what once was "Six-mile-busti" we pass a quaint water reservoir and see the road leading down to the new Goorkha cantonment called *Takda* (not, it appears, a very successful site for a cantonment.)

The fine Cart Road ends at the 6th milepost but the road beyond is still good and it runs mainly down through fine forest till after a steep descent it reaches Lopchu Bungalow (5,300 feet, 2 rooms and 5 beds). This bungalow is but seldom used, but the view from it is unique. On a clear day looking straight forward to the north we see, without moving the eyes, the bed of the Rungeet river (altitude 1,000 feet) and the top of Kinchenjunga (28,146 feet or a vertical mass of the earth's surface of over 27,000 feet.)

From the bungalow and the small village close by the road descends rapidly, passing the Lopchu Tea Estate, till

an hour later we pass a group of tombs (the Sadhu's Tomb), then round a corner and down some zigzags through fields of millet, till we reach the factory of the Pashoke Tea Estate. From here the road goes down steeply through tea gardens till Pashoke bungalow is reached (altitude 2,600 feet, 4 rooms and 6 beds).

On the morrow it behoves the traveller to start early. There is a steep walk down to the Teesta Bridge (altitude 700 feet), passing, in about 20 minutes from the start, a wooden summer-house from near which can well be seen the "Meeting of the Waters" of the Teesta and Great Rungeet rivers (to be described below). It is a good hour's walk from Pashoke to the small bridge (near many signposts) at the foot of the descent. From this small bridge, passing through the Teesta bazar, we reach the great bridge over the Teesta in about 15 minutes (altitude 700 feet only.)

THE TEESTA BRIDGE.

Before going further we should say a few words about this important place. It is a sort of Charing Cross and will soon be the hill terminus of the coming Teesta Valley Railway.

The railway is coming up the Cart Road from Siliguri (on the Eastern Bengal State Railway) 32 miles off. From the Teesta Bridge a road runs up the hill to Kalimpong (7 miles by good shortcuts, 10 miles by Cart Road). Another road goes up the Rungeet valley to Manjitar and Badamtam, another we have just walked along from Pashoke, and we now proceed to describe the Cart Road from Teesta to Gantok. The views of the Teesta up and down from the bridge are magnificent.

Crossing the bridge we keep to the road up the river valley. Less than two miles from the bridge we come to the celebrated "Meeting of the Waters" of the Teesta and the Great Rungeet, its greatest affluent. The water of the Teesta is some degrees colder than that of the Rungeet, but a still more noticeable distinction is in

their colour. In clear weather the water of the Teesta is seagreen and muddy, while that of the Rungeet is dark green and very clear. The line of junction of the waters is very clearly seen across the rivers and the two differently coloured rivers flow side by side unmixed for several hundred yards.

About 3 miles from the bridge we come to a little village called Melli, with a neat bungalow just above the road (altitude 800 feet, 4 small rooms and 4 beds). From Melli the road still follows the river, now close to, now high up above the waters. From the 8th to 10th mile (from the bridge) we are in sight of a gigantic landslip on the opposite side of the river with a large boulder-strewn talus of much interest geologically. On we go, getting splendid views of bends and gorges of the river, till 14 miles from the bridge we meet an anæmic policeman, hand over our Frontier passes, cross a bridge over the Rungpo river and enter the territory of the Maharaja of Sikkim.

Rungpo is a big village and good fishing is said to be obtainable in both the Rungpo and the Teesta rivers which here unite. The bungalow is well situated, high above the bazar, and overlooking the gorge of the Rungpo river (altitude 1,200 feet, 6 rooms and 4 beds). It is hot here and mosquitoes are complained of. Just behind the bungalow is the road to Pakyong (10 miles from Gantok), an alternative route, more hilly but avoiding the hot Cart Road *via* Singtam.

Soon after leaving Rungpo on our way up the Cart Road to Singtam and Gantok, we pass a disused copper mine and near by a tall masonry chimney marks what was till recently a copper smelting place.

As elsewhere in Sikkim the Rungpo Copper Mines are in the face of a steep cliff or landslip. A geologist has well described the Sikkim mines as "greatly resembling magnified rabbit holes, meandering passages excavated with little or no system, the shafts driven vertically

in from the face of a cliff." Further on we pass a new bridge and at the 20th milepost we see a neat Dak Bungalow and in 15 minutes more we turn a corner to the right, pass along the bridge over the Roru and enter the Singtam bazar.

From Singtam to Gantok the road has been already described. If the traveller has little time to spare the journey from Darjeeling to Gantok should be done in 3 days' marches, Pashoke, Rungpo and Gantok. If time is no object it is well to spend a night at Shamdong.

Gantok, the present capital of Sikkim, is admirably situated on a high ridge at an elevation of about 5,800 feet. The Dak Bungalow is not worthy of the Capital (5 rooms and 4 beds). The Post Office and the Dispensary are near by. The bazar shops are on a long ridge and some European stores are obtainable. The town also contains the Maharaja's Palace, the beautiful residence of the Political Officer in Sikkim, lines and quarters for officers and men of a double company of Indian Infantry, a Jail, and a Telegraph Station, run by European military signallers.

The Gantok view of the snows has been well described by Freshfield (*Round Kanchenjunga*, page 69):—
 "A superb view. Nearest on the left rose Narsing, a rocky crest of only 19,150 feet, which yet owing to its comparative proximity makes a fine show. The massive cupola of Pandim, supported by grey granite cliffs, next detained our eyes. In the gap between it and Kinchenjunga a long curve of pure snow rising gently at either end was identified as the topmost ridge of the twin crested Kabru. In the centre the soaring lines of Kinchenjunga sprang up high above its attendant summits. On its southern precipice the horseshoe band of rock, conspicuous in all photographs from Darjeeling, was distinguishable. The two peaks are connected by a rock ridge with a deep notch in it. Siimvovonchin (Simvoo) 22,300 feet came next, a tame mountain composed of three snowy eminences offering a tempting prey to the explorer.

East of it spreads a broad névé sending down an icefall to join a trunk glacier in the Passandam glen, a branch of the Talung valley. . . . The saddle at the head of this névé leads to the Zemu glacier out of the névé just mentioned springs a tremendous cliff capped by rock needles and columns, the buttresses of Siniolchum. The peak itself (22,570 feet) tilts against the sky, lifting as it were its silver spearhead to catch the first gleam of early dawn. Round about its base great granite crags are thrown up against spotless snowfields, as the Chamonix, Aiguilles are against Mont Blanc in the view from the Col de Balme. Siniolchum is, and is likely to remain, the Jungfrau or virgin of the Sikhim Highlands. . . The traveller who has gazed up at its crest from the east or north will not readily forget the lovely apparition, and its almost incredibly perfect grace of form At Gantok a long waving crest of forest a few miles off arrests the eyes and forms the base from which the great snow peaks sprung . . . The peaks stand in a line, each separate and showing itself to the fullest advantage, but they do not compose a group."

(To be continued.)

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SPECIFIC INFECTIVE DISEASE.

BY J. M. MACPHAIL, M.D.

IT was in the year 1866 that Pasteur published the first of his principal scientific works, *Etudes sur le vin*, in which he made known to the world his great discovery that fermentation and putrefaction were due to the action of minute living organisms which are described collectively as germs. It was an epoch-making discovery, for one of its almost immediate results was to enable Lister, working as a surgeon in the wards of the Glasgow Royal Infirmary, to introduce the antiseptic treatment of wounds through the further discovery that the germs that caused wounds to suppurate could be killed by certain chemicals like carbolic acid or by heat. This, combined with the introduction of chloroform in Britain and of ether in America for producing anæsthesia, led to a development of surgery that can be described without exaggeration as revolutionary, with results in the relief of suffering and the saving of life that are far beyond our powers of computation. The object of this paper, however, is to give some account of the effect of the same discovery in the domain of medicine, where the results have been equally remarkable and beneficent.

It has been chiefly in the region of specific infectious disease that progress has been made in modern medicine, and nowhere have the achievements been more notable than in connection with tropical diseases. The subject is a large one, and it can only be reviewed in outline here, with special reference to the diseases that are prevalent in India.

By a specific disease we mean a disease that "breeds true," always produced by the same agent and running a clearly defined course. By an infectious disease we mean

one that is produced by the invasion of some disease-causing agent into the human body and which may be conveyed from one person to another, either directly by contact or the transfer of the living agent, or indirectly through the medium of some other living creature. In some cases the living agent that produces the disease has still to be discovered, although there may be practically no doubt of its existence, and it has also to be borne in mind that diseases vary greatly in the degree to which they are infectious. In some cases the seed is so active that it can take root in almost any soil; in other cases it seems to need a soil specially prepared for it if it is to live and flourish. But these and many other points will emerge in the course of the more detailed description. The classification adopted is mainly that which is used by Sir William Osler in the most recent edition of his standard work on Medicine.

The most numerous class of Specific Infective Diseases are those which are due to Bacteria, or bacilli. Tuberculosis is not the most typical member of this group, for it is not infectious to the same degree as many of the others; but it is in some respects the most important, for it and malaria are the most destructive agencies with which the human race is afflicted. Fortunately, they are both now in the category of preventable diseases. The *bacillus tuberculosis* was discovered in 1882 by Koch, the great German investigator, whose name will always be associated with that of the great Frenchman Pasteur and with that of the great Englishman Lister, in the history of Medicine. Tuberculosis was recognized by Hippocrates; John Bunyan describes it as the "Captain of the Men of Death," and no disease is more widely spread, either geographically throughout the world or zoologically in the animal kingdom. A very important fact is its prevalence among bovines, from whom most of our milk supply and a considerable quantity of food are derived. There has been a controversy as to whether human and bovine tuberculosis

are identical or not. On one occasion Koch himself expressed the opinion that they were not and that the danger of human beings becoming infected from the milk or flesh of tubercular cows was not serious ; but he subsequently modified this statement, and the consensus of opinion is that it is not safe to exclude these as possible sources of infection. Milk especially seems to be a common medium by which the disease is spread, especially among children, infection through the intestines being one of the gravest risks among them, as infection through the lungs from air-borne bacilli is the common danger to adults. No age is spared, but tuberculosis is chiefly a disease of early life, the period of maximum incidence being from the age of 18 to 35. It is a house disease, no factor being of greater moment than the number of cubic feet of pure air that each individual is free to inhale. While no race is immune there are curious differences as regards susceptibility. The Jews, for example, are, and always have been, remarkably free ; their rules about butcher meat have been supposed to account for this, but the explanation is not accepted as adequate by some authorities. On the other hand, the Irish, both in their own country, where poverty might account for it, and in America, where it would not, very readily fall victims. The contagiousness of tubercular disease was formerly a matter about which some doubt existed, but this has been dissipated by the discovery of the bacillus and by experiments with it. In former days a great deal of importance was attached to susceptibility, to an inherited liability to contract the disease. It is still impossible to deny that there may be a greater predisposition in some people than in others, but it is almost certain that the disease itself is never congenital and that a great deal more depends upon infection than was formerly realized. Two very satisfactory facts have also been clearly established. One is that the disease is preventable by very simple means that are at the command of every one, and as a matter of fact the disease, generally, shows a decline

of nearly 50 per cent. in the last forty years. The other is that it is curable. The results of *post-mortem* examinations in the British hospitals show that 90 per cent. of the urban population have suffered from tuberculosis in some form or another at some period of their lives and that the great majority have been cured, many of them never having known that they were infected. There are certain climates, high and dry, where the risk of infection is least and the prospect of cure greatest, but it has become abundantly evident that the disease can be prevented and in its early stage cured by living an open-air life anywhere on the face of the earth. There has been a great increase of tuberculosis in India, especially in the cities, and there is good reason to believe that this is due in large measure to the fact that many people, formerly accustomed to an open-air life, have been taking to indoor occupations.

The "Comma" bacillus of cholera was also discovered by Koch in 1884. This disease was in former days known as Asiatic cholera, and was confined to the East, but early in the nineteenth century it invaded Europe and America. Regarding its infectiveness there has never been any doubt; it has always followed lines of human travel, and has been above any other disease associated with pilgrimages. East and West, it is manifestly a disease that is conveyed by drinking-water. The epidemic in Hamburg in 1892, when 18,000 persons were attacked, of whom 7,500 died, was attributed to the fact that the population drank unfiltered water from the Elbe. The neighbouring city of Altona, which also took its drinking water from the same river but had an efficient filtering apparatus, had during the same period only 516 cases. The fact that no case has been known to occur in England or in the United States since 1873 is proof that the disease can be controlled.

Plague is one of the historic scourges of humanity, ranking with war and famine as a means of wholesale devastation. Twenty-five years ago it was spoken of as

one of the evils of antiquity, or at least of medieval times. De Foe made us familiar with its ravages in London, but still more terrible were the epidemics of the fourteenth century, when it was known as "black death," and destroyed about a fourth of the entire population of Europe. Its reappearance in Hong Kong in 1894 was a rude shock to the belief that it had become extinct, except for a few odd cases in the Kangra Valley in India and in some parts of China, and with the history of its spread to India and elsewhere since that date we are only too familiar. Between 1906, when it appeared in Bombay, and the end of 1911, at least seven and a half million people died of plague in India. The *Bacillus pestis* was discovered by a Japanese doctor, Kitasato by name. It is really a rat disease, and were it not for the fact that the rat flea, *pulex cheops* rarely bites man, it is probable that long ere this plague would have turned the world into a wilderness.

Typhoid or enteric fever is another disease upon which bacteriology has shed much light. In fact it was not till 1842 that it was recognized as a distinct disease, and not till the researches of Eberth, Koch and Gaffky established the existence of the *Bacillus typhosus* had we any idea that it was so widely prevalent as it is now known to be. It is everywhere associated with defective hygienic arrangements, and has been described as an "index to the sanitary intelligence of the community." Imperfect sewerage and contaminated water-supply are the main factors, aggravated by filth, overcrowding and bad ventilation. In war it kills more than powder and shot; in our own war in South Africa there were 57,684 cases of enteric fever, with 8,225 deaths, while the number of men who died of wounds was 7,582. On the other hand it is said that in the war between Russia and Japan the mortality from typhoid and dysentery was exceptionally low, thanks to the forethought and efficiency of the medical authorities. It is in the United States, among civilized nations, that typhoid fever is

exceedingly prevalent, with about half-a-million cases every year, causing a mortality of from 35,000 to 40,000. Flies are said to be common carriers of the disease, and vigorous measures have recently been taken to exterminate them. In India, the disease was formerly supposed to be rare, except among Europeans, but it is now known to be common. Rogers estimates that 80 per cent. of the continued fevers in India that last three weeks are typhoid. Probably the highest temperatures on record have been in cases of this disease. Osler mentions 109·5 as the highest he has known, but in the Proceedings of the Calcutta Medical Congress of 1894 there is an account of a case in a European in Naini Tal where it reached to more than 115 degrees. The patient recovered.

Tetanus is another very fatal disease in India. The deplorable accident which occurred at Mulkowal in the Punjab in 1902 when, in the course of anti-plague inoculation work, nineteen persons died owing to the contamination of the cultures, is a mournful illustration of the virulence of the *Bacillus tetani*, discovered by Nicolaier. This organism has for its usual habitat the earth, putrefying fluids and manure. It is probably the most virulent poison known. Semple gives an illustration in the fact that two steel pen-nibs, dipped in a tetanus culture in 1891, were used for producing a growth of active bacilli, one in 1902 and the other in 1909. In ordinary practice the disease is most frequently found in wounds that have been contaminated, and in America explosions of gunpowder on the occasion of the Fourth of July celebrations furnish a large number of cases.

Malta Fever is a disease which has only recently been differentiated, entirely as the result of bacteriological methods of research. The British Army Surgeons at Gibraltar and Malta had for many years been familiar with a fever that seemed to possess features of its own, including what they called an "undulatory" temperature of a very persistent kind, and in 1886 Bruce isolated the *Micrococcus*

melitensis from the spleen and blood. It was soon found that the goat was very liable to this disease, the Micrococcus being found in from 10 to 15 per cent. of the samples of goats' milk that were examined at Malta. The use of goats' milk in the garrison and fleet was interdicted, and the fever at once began to decline until 1907 when it disappeared. It has been found, however, to be by no means unknown in India, China, Africa and Manila.

Leprosy is one of the historic diseases. There is evidence that it existed in Egypt 3,000 or 4,000 years before the Christian era. The writers of the Old Testament were familiar with it, and so were the Greek and Roman physicians. It was common in medieval Europe and in India, where there are said to be 100,000 lepers to-day ; it has evidently been known from very ancient times. It was in 1871 that Hansen, of Bergen, discovered the *Bacillus lepræ*. It has many points of resemblance to the tubercle bacillus, and there have been similar uncertainties about some features of the diseases. There has been a longstanding controversy as to whether leprosy is hereditary or only contagious. The tendency of expert opinion at present is that it is not inherited, and this is confirmed by the experience of those in charge of leper asylums that if children are separated from leprous parents at a very early age they can be kept free from the disease. In the case of a chronic disease it is difficult to be absolutely sure that it is not present at birth, but there is no case on record of a newly-born child showing distinct signs of leprosy. It is a rare thing for the disease to develop before the age of three or four years. On the other hand, the fact that so many children who as far as can be judged are not born lepers become lepers through living with leprous parents supports the view that the disease is infectious. At the same time it cannot be maintained that leprosy is infectious in a high degree. There have been cases like those of Father Damien in the Sandwich Islands and of Father Boblioli in New Orleans, who fell victims to

the disease while working among lepers ; but there have been many cases of other equally devoted workers who have spent fifty years and more in daily intercourse with lepers without showing any trace of the malady. The late Jonathan Hutchinson was convinced that leprosy was due to the eating of fish either through fish when stale acting as a carrier of the germs or because this kind of diet rendered the system more susceptible. His own argument in favour of this theory, that a great many inmates of the leper asylums in India were Christians, who used fish as food to a larger extent than Hīndus, is altogether unconvincing, the fact being that nearly all these Christian lepers became Christians after they had entered the asylums as lepers.

Dysentery is another disease that must now be added to the list of those which are caused by germs. Microscopic examination has shown that two distinct diseases have been included under this term, one due to or at least associated with a bacillus, the *bacillus dysenteriae*, which was discovered by Shiga, another Japanese doctor, in 1898, while the other is associated with a different kind of organism known as an amœba. Dysentery shares with typhoid fever the reputation of being a camp disease, and like it may be regarded as a punishment for the neglect of sanitation. It seems very probable that in the epidemics that sometimes occur in tropical countries it is the bacillary type of dysentery that predominates.

The remainder of the bacterial diseases include some of serious importance, but they are not tropical diseases in the same sense as those already mentioned. Pneumonia, however, is familiar in every part of the world as one of the most fatal of diseases, and specially dangerous to the aged. In the Transvaal mines it comes next to tuberculosis as a cause of death. The organism associated with it is one of several instances of almost simultaneous discovery by independent workers. It is a micrococcus, and as it usually occurs in pairs it is termed also a diplococcus

—also known, and more generally as the *pneumococcus*. Sternberg first observed it in September, 1880, and published a description of it in April, 1881. Pasteur observed it in December, 1880, and published the fact in January, 1881, and therefore claimed priority. But neither of them associated this germ with pneumonia. It was not till April, 1884, that Fraenkel established the fact that it was chiefly in pneumonia that it was found. Its activities are not by any means confined to this disease. It may attack the eye, producing ulcers of the cornea, or the ear, causing suppuration, and in co-operation with other germs it may cause septic mischief in many other places. The inflammatory affection of the skin, accompanied by febrile symptoms, which is known as Erysipelas, has been traced to the *Streptococcus erysipelatis*, which seems to become aggressively active under some atmospheric or telluric conditions that are as yet imperfectly understood. Diphtheria is another of the diseases that has been rendered much less terrible owing to the discovery of its origin in the *Klebs-Loeffler bacillus*, which commemorates the two investigators whose combined efforts led to its recognition. In some bacillary diseases the symptoms are due directly to the multiplication of the bacilli in the blood; a condition to which the name bacteraemia has recently been given. In others, the evil is done by the dissemination through the blood of toxins which are produced by the bacilli, and to this phenomenon the term toxaemia is applied. Diphtheria is a typical example of toxaemia. It was not until some time after the discovery of the bacillus by Klebs and Loeffler that Roux, Yersin and other workers discovered the toxin, while it was left to still another bacteriologist, Behring, to provide the antitoxin to which reference has yet to be made. Cerebro-spinal Fever, commonly known as "spotted fever," is a very fatal disease that occurs in epidemic form. In an outbreak in Glasgow in 1907 there were nearly 1,000 cases with 595 deaths. The organism that gives rise to it was discovered by Weichselbaum in 1877

and named the *Diplococcus intercellularis meningitidis*. Influenza is a disease that assumes not simply epidemic but pandemic form, spreading all over the world with great rapidity but never in excess of the speed of human travel. The last great pandemic began somewhere in the Far East in May, 1889. It reached Moscow in September and St. Petersburg in October. Travelling westwards by Berlin, which was reached in the middle of November, it arrived in London by the middle of December, and taking one of the first steamers from Liverpool it landed in New York by the end of the month. Having overrun the American continent it returned to the East. It was brought to Bombay by the mail steamer early in 1890, and spread at once over India, where it received in the bazars the name of "balati bokhar," the English fever. The ailment has persisted ever since in some part of the world, occasionally assuming epidemic form. Pfeiffer isolated the *Bacillus influenzae* in 1892. Similar to it is the *Bacillus pertussis*, the alleged cause of whooping-cough, discovered by Bordet and Gengou. The *Micrococcus gonorrhoeae* was first described by Neisser in 1879. Glanders is a disease of horses and asses, caused by the *Bacillus mallei* which occasionally attacks man, with fatal results. More fatalities have occurred among workers in the laboratories through accidental inoculation with this bacillus than from any other germ. Anthrax is another disease of special interest to the bacteriologist. It was in connection with it that the vast possibilities that were latent in this department of science began to dawn upon the minds of men. There is no other disease so widespread among animals, and it was to it that Pasteur turned his attention as soon as he had grasped the idea suggested in the brewery of the germ-origin of disease. In man the disease does not occur spontaneously, but only through infection from animals. It used to be called "Wool-sorter's Disease," from the fact that workers in wool and hair were often affected. Another class exposed to infection are

workers in leather, and stablemen and butchers also suffer. In these the disease takes the form of a local sore called Malignant Pustule, but there is also an internal form of the disease in man which is attributed to eating the flesh or drinking the milk of diseased animals. It is stated that in England 80 per cent. of the cases of Malignant Pustule occur among those who handle hides at the docks or in the tanneries, and that of these cases half are due to the goods imported from China and India. The bacillus is the *Bacillus anthracis*.

Last among the bacilli are to be mentioned a few whose claim to specificity still remains unsettled. There is a group, of which the *Bacillus coli communis* is the type, which may always be found in the human alimentary canal and which in ordinary circumstances do no harm, and may possibly serve some useful purpose. But in certain conditions they apparently become virulent. To them some pathologists attribute appendicitis and other internal inflammations that cannot be otherwise accounted for. Then there are the bacilli that are associated with supuration, locally, and with the general condition which is popularly described as blood poisoning. Among these the *Streptococcus pyogenes*, the *Staphylococci*, and the *Bacillus pyocyaneus* are the most common. Next in number to the Bacillary Diseases, and equal to them in importance, are those which are due to the invasion of an organism of a lower type, a protozoon. First in this group comes Malaria, which is beyond question the most serious disease with which we have to deal in India. Cholera may kill its thousands, but malaria kills its tens of thousands. It is more destructive, because more constant and more generally distributed, than the plague. There is nothing that would do more for the economic progress and material prosperity of India than the extermination of malaria; and in view of what has been actually accomplished elsewhere it cannot be said to be impossible. Long ago, before the malarial parasite was dreamt of,

it was believed that "malaria" was something that was ponderable. It was observed, for example, that it was worse in rooms on the ground floor than in rooms upstairs. It was supposed to be a "miasma" exhaled from swamps—hence its Italian name, malaria, or bad air. About a hundred years ago an English doctor in Madras, who was no doubt regarded as a crank, used to tell his patients that by sleeping within mosquito curtains they could protect themselves from malarial fever.

The honours of bacteriology are divided among the nations with a high degree of impartiality, and it is to a Frenchman, Laveran, that we owe the discovery of the *Plasmodium malariae*. (It is a popular error, but common among otherwise well-informed writers, to speak of the bacillus of malaria.) In 1880, while working as an army surgeon at Algiers he detected by means of the microscope,—an instrument of much lower power than the modern bacteriologist considers essential for his work,—pigmented bodies in the blood of fever patients which he regarded as parasites, the cause of the disease. Two Italians, Marchiafava and Celli, took up the study with much earnestness, and among others who recognized without delay the importance of the discovery was Vandyke Carter of Bombay. It was reserved to British workers, Manson and Ross, to complete the work of Laveran by establishing the fact that it was by means of the mosquito that the parasite found access to man. Manson had discovered some years earlier that the mosquito was the carrier of another parasite of human blood, the filaria, and he, from London, suggested to Ross in India the possibility that the same might be the means of communication in malaria. It was as the experiments made by Ross were showing signs of successful issue that he wrote the verses,—

This day relenting God
Hath placed within my hand
A wondrous thing ; and God
Be praised. At His command, .

Seeking His secret deeds,
 With tears and toiling breath,
 I find thy cunning seeds,
 O million-murdering Death.

I know this little thing
 A myriad men will save.
 O Death, where is thy sting?
 Thy victory, O Grave?

Just one thing remained to make the chain of evidence complete, the crucial experiment of actually communicating malarial fever to man. Here the Italians again co-operated, and special arrangements were made with the postal authorities to allow of mosquitoes, which had been fed on the blood of persons suffering from malarial fever, to be sent from Italy by the Indian mail to London. There Manson caused them to bite his son, who had never been exposed to malarial infection before, and as the result he developed malarial fever. Since then an immense amount of work has been done in connection with malaria. It is now recognized that there are at least three varieties of the parasite, *Plasmodium vivax*, which is found in tertian fever, *Plasmodium malariae*, of quartan fever; and *Plasmodium falciparum*, the parasite of aestivo-autumnal fever. Of course there may be mixed infections. The mosquito also has come in for a great deal of attention. At first a simple division was made between the culex, that was not a carrier of malaria, and the anopheles, that was; but a large number of species of anopheles have now been distinguished, and they are implicated in various degrees. In parts of India the commonest anopheles is the *Neocellia rossi*, which plays no part in the dissemination of malaria. It is a different species, the *Neocellia stephensi*, which seems to be chiefly implicated. The narrowing down of the agency of infection to certain easily distinguished species will greatly simplify the task of extermination. One general mark of distinction is that the culex is a domestic creature, found in the neighbourhood of houses and chiefly in cities. The anopheles is its country cousin, found in rice fields, in

slowly-running streams, along the edges of tanks, and in other places of a like kind.

The Trypanosome is another of the protozoa that has been proved to be the source of untold suffering to man. Livingstone and other African travellers long ago made the world familiar with the ravages of the tsetse fly among cattle and horses. In 1895 Bruce discovered that the disease due to the bite of the fly was caused by a protozoan which was named the *Trypanosoma brucei*. A curious fact about it is that it is normally present in the blood of the big game in certain districts, where it does no apparent harm. It is when it is injected by blood-sucking flies into cattle and horses that it causes disease. Further investigations revealed the existence of other parasites of the same kind elsewhere, one of them common in the Philippines, producing the disease among horses known as surra, which is found also in India; another that causes a similar disease in South America; and a third of less virulence found among cattle in the Transvaal. In 1901 Dutton found a trypanosome in the blood of a West Indian, and another step in advance was made in 1903 when Castellani found trypanosomes in the cerebro-spinal fluid of five Africans who were suffering from the disease known before then as Sleeping Sickness. A Commission of the Royal Society then investigated the matter and reported their belief that Sleeping Sickness was a tsetse fly infection in man, the parasite in this case being the *Trypanosoma gambiense*, conveyed by a fly known as *Glossina palpalis*. A matter that is at present being investigated is whether another fly, the *Glossina morsitans*, may not also act as a carrier of the parasite. Sleeping Sickness was at first found chiefly but not exclusively in Gambia, Sierra Leone and Liberia, and was occasionally exported to America along with the slaves. As Africa has become opened up to civilization the improved means of communication have led to a great expansion of the infected area. Trypanosomiasis is now prevalent in the Congo basin, in Uganda, where it caused the death of

100,000 negroes within three years of its introduction, and in Rhodesia. It is spreading elsewhere and attacking Europeans as well as negroes. The *Glossina palpalis* haunts the shores of lakes and the banks of rivers and preys on crocodiles, antelopes and other big game, whose complete destruction is demanded by some experts as the only possible means of getting rid of the disease. Kala-azar or Black Fever is a disease very prevalent in certain parts of India, the name being of Assam origin. Years ago it presented features that distinguished it from malaria. It has a very high mortality, at least 80 per cent. of the cases proving fatal. Leishman in 1900 discovered a new parasite and Donovan identified it as the cause of this form of fever. It is called *Leishmania donovani*. Two other forms of the parasite are *Leishmania infantum*, which is found among children in countries round the Mediterranean; and *Leishmania tropica*, which produces a localized ulcer variously known as the Aleppo boil, the Delhi sore, the Baghdad sore, the Nile sore, and Tropical Sore. To this group of diseases associated with this form of protozoon the general term Leishmaniasis is now given. In the case of Kala-azar there is a theory, that the bedbug plays the part that is played by the mosquito in malaria. Relapsing fever or Famine fever presents the peculiarity that while the disease is found presenting the same features in different countries, the parasite differs. It is in every case a spirillum or spirochæte. In India it was Vandyke Carter, one of the pioneers in tropical bacteriology, who discovered many years ago the spirillum that has been named after him. In Africa another name for the fever is Tick fever and the parasite is *Spirillum duttoni*. There is also the spirillum or spirochæte of Obermeier, discovered in 1873, the parasite of the European form, and still another, the *Spirillum novyi*, is found in America. Another spirochæte is that of Syphilis, the *Treponema pallidum*, which after a long search was discovered by Schaudinn in 1905. Reference has already been made to

the fact that there is a form of dysentery which is due to an amæba, which is also a protozoon. It was observed for the first time as far back as 1859, but it required patient research in Egypt, in America and in India to establish clearly its connection with dysentery. The disease which is due to the *Amæba* or *Entamæbia dysentericæ* is now often designated Amæbiasis to distinguish it from the bacillary dysentery. Amæbiasis is to a larger extent a tropical disease than the latter; it is very prevalent in India, and it is this form of dysentery which is specially liable to lead to inflammation and abscess of the liver. It is more common among Europeans than among Indians, but the difference is probably largely one of diet.

Another group of diseases is due to non-bacterial fungus infections. Mycoses is a general term applied to the group. In India most interest attaches to the mycosis which is known as Mycetoma or Madura foot, a disease which causes swelling and disintegration of the foot. It was Vandyke Carter who first studied the pathology of Madura foot, which is due to a fungus known as the *Streptothrix maduræ*. It is common in some parts of India, but a few cases have been recorded in other parts of the world. Actinomycosis, a disease due to the ray-fungus *Streptothrix actinomyces*, and widespread among cattle and pigs, sometimes attacks man, the probable source of infection being the eating of the flesh of diseased animals. There are also various fungi of the Sporotrichoses group, of the Nocardioses, of the Oidiomycoses and of the Spergilloses, which occasionally attack man, which on gaining access to the skin, the lungs or other organs, produce symptoms of irritation.

The fourth and last group of infective agents are classed as Metazoa. Among them are the flukes which cause Distomiasis. There is a fluke of distoma or trematode which is found in the lungs in the Far East, producing the symptoms of tuberculosis. Another is found in the liver of ruminants in Japan, China and India and

occasionally in man. The most important member of the group is the fluke, *Bilharzia hæmatobia*, first observed by Bilharz in Egypt in 1851 and now known to be prevalent in North and South Africa, Arabia, Persia and the west coast of India. Taken into the stomach, probably with water or on cresses, it finds its way into the blood and is extensively distributed through the body, producing varied symptoms. In the bladder it often forms the nucleus of stones, a prevalent disease in Egypt. An Asiatic blood fluke has recently been discovered, very similar to the African variety. Cestodes are another group of metazoa with some of which the world has long been familiar. They include the Intestinal Cestodes or tapeworms. There is the *Tænia solium* or Pork Tapeworm, the larvæ of which are found in "measly pork." There is also the *Tænia saginata* or Beef Tapeworm, where cattle instead of pigs harbour the larvæ. There is also a tapeworm of dogs which occasionally gains access to man through the medium of the lice and fleas that infest dogs. Measly pork and beef should be rejected as food, but thorough cooking kills any larvæ that may have escaped detection. It is still a more serious condition when the larvæ of these cestodes attack man. The larva of *Tænia solium* is the *Cysticercus cellulosæ*, and the *Echinococcus* is the larva of a tapeworm of the dog, the *Tænia echinococcus*. The pig and the dog seem to harbour these larvæ with little inconvenience, but when man becomes the intermediate host the symptoms are often serious. It is the echinococcus which produces the disease known as Hydratids of the liver, cysts being formed in that organ by the action of the larvæ. It is the close association of men, dogs and sheep that gives rise to this disease, and it is in Australia that it has been found most frequently. Another important group are the Nematodes, including the *Ascaris lumbricoides* or round worm; the *Oxyuris vermicularis* or threadworm; the *Trichina spiralis*, whose larvæ are

also ingested with insufficiently cooked pork, ham and sausage, eating at German feasts being a very common cause of an outbreak of this disease with symptoms resembling those of typhoid fever; the *Ankylostoma*, the *Filaria* and the Guinea worm. The last three deserve more than passing notice on account of their prevalence in India. The *Ankylostoma* is known in America as the Hookworm, but it is now known to exist in two forms, the *Ankylostoma duodenale* and the *Necator americanus*, the former being the old world and the latter the new world species. An intestinal parasite, it is said to gain access in most cases through some abrasion in the feet, or it may be even through unbroken skin. Entering the veins, the larvæ are carried to the heart, thence to the lungs, where they find their way into the windpipe, and travelling up it they reach the gullet and so down into the stomach and intestines. In the intestines the worm develops and, attaching itself to the walls, causes in many cases extreme anæmia by blood-sucking. It is said that in India 50 to 80 per cent. of the population are infected. In Porto Rico the proportion is 90 per cent. As long ago as 1866 it was found to be common among the negroes in South America. A few years later it was proved that a severe form of anæmia that was common among brick-workers in Italy and also among miners and tunnel diggers was due to this worm. It flourishes mainly in the tropics but also in any place where, as in mines and tunnels, the combination of heat and moisture produces the conditions of tropical life. The depraved habit of earth-eating, common among children in India, is said to be one of the most certain ways of producing the disease, the ova being very extensively distributed in the soil. Filariasis is a subject with which, as already mentioned, the name of Manson is associated and which afforded an analogy that led to the solution of the malaria problem. The *Filaria sanguinis hominis* was first observed by Cobold in 1877, a parasite in the blood of man, found, however,

only during sleep or at night. It may be remembered that a few years ago evidence was produced in a murder trial in Calcutta that blood found on a pillow was not only human blood but that it had been shed during the night. In 1891 Manson discovered that there were at least two other filariæ in addition to the common one, *Filaria diurna* which was found only during the day or when the patient was awake, and a *Filaria perstans* that was found both by night and day. Of the last, only the embryos have so far been observed. The mosquito acts as the intermediate host of the filaria, sucking the embryos from the blood of the infected and probably injecting them directly into its victims. In ordinary circumstances the presence of these parasites may cause little discomfort, but sometimes they and their ova block up the lymphatics and in this way produce serious diseases, of which elephantiasis is the best known. The Guinea worm is known to science as *Dracunculus medinensis* and is widely spread in Africa and India. The life cycle is fully worked out. The worm finds entrance to the stomach in an immature form, probably in drinking-water. Penetrating the intestine it buries itself in the subcutaneous tissues and when it reaches maturity works itself head downwards to the foot or ankle. It makes an outlet through the skin and discharges its embryos in a whitish fluid. These develop in water and repeat the process. It is said that when all the embryos are discharged the worm spontaneously leaves its host ; but there are various means used by the people for expediting the process. Pouring water over the little opening induces the worm to discharge the embryos more rapidly ; or the protruding end is rolled round a small piece of stick, and a few more turns are given to the stick every day till the extraction is complete.

Mention must also be made of the Parasitic Ticks, among whom the *Acarus scabiei* or Itch insect is only too well known, while the Harvest Bug and the fever-producing ticks of South Africa are not to be ignored : the

Parasitic Insects, strictly so called, like the *Pediculi* or lice, the *Cimex lecticularis* or common bed-bug, whose importance has become greatly enhanced if he is really the transmitter of Kala-azar, the *Pulex irritans* or common flea and the *Pulex penetrans* or jigger which is fortunately rare in India; and the Parasitic Flies which may accidentally invade the various cavities of the body or the skin where their larvæ become a source of irritation. This condition is termed Myiasis or Myiosis.

There remains a group of diseases, unfortunately large and manifestly infective, where the infective agent has still to be discovered. It is almost certain, for example, that there must be a living organism that conveys the infection of diseases like smallpox, scarlet fever, measles, mumps, typhus fever, hydrophobia and many other diseases of the same description. In the case of yellow fever and dengue we seem to be very near the discovery of the specific germs, for it has been proved that these diseases, the first very deadly and the second very painful, are transmitted by the bites of mosquitoes. Yellow Fever was formerly the scourge of the Spanish Main and of the shores of the tropical Atlantic both in Africa and America. As long ago as 1881 Carlos Finlay, of Havana, suggested that the mosquito was the carrier of the disease. More recently an American Commission, stimulated by the discovery of Ross and also by the expansion of the tropical possessions of the United States, undertook a thorough investigation. Doctors exposed themselves to every conceivable source of infection, except mosquito bites, and escaped; they protected themselves from all these other risks and caused themselves to be bitten by mosquitoes that had been fed upon yellow fever patients, and they contracted the disease. Two of these experimenters, Dr. Lazear, of the American Commission, and Dr. Myers, of the Liverpool Commission, died as the result. The mosquito that acts as the carrier of Yellow Fever is the *Stegomyia fasciata*. It has been predicted that the opening of the

Panama Canal may lead to the spread of this fever to the Pacific and to Asia, and it is satisfactory that the means by which the disease is communicated has been discovered before the canal is completed. In the case of Dengue (the word is of doubtful origin, but there is a remote suggestion that it is a Hindustani corruption of the word "dandy," owing to the stiff, dignified gait which this "break-bone" fever gives rise to). Graham in 1903 showed that the fever could be transmitted from those suffering from it to healthy persons by the bites of another species of mosquito, the *Culex fatigans*. In the case of these fevers the germ is presumably so minute as to be ultra-microscopical. They are also called "filter passers," as no means of filtering has been sufficient to separate them from the blood. A form of infantile paralysis, Acute Polio-myelitis, is now attributed to one of these undiscovered germs which produces lesions of the brain and spinal column. It is also believed that Rheumatism is due to an infective agent which has a partiality for the joints, producing irritation either by its direct action or through toxins. Hydrophobia is another disease in which we seem to be on the verge of discovering the germ. In England the muzzling order has been followed by a complete disappearance of the disease, and there has been no death from hydrophobia since 1903. In India there are still abundant opportunities for studying the disease. It is also common in Russia, the wolf being even more susceptible to the disease than the dog. Wounds about the head and face are specially dangerous. Acute Tonsillitis is probably due to a germ, and in ordinary catarrh a *Micrococcus catarrhalis* has been discovered in many cases which is still under investigation. Jaundice sometimes occurs in epidemic form, and search is being made for a germ to account for this. In certain districts of the United States, west of the Alleghany Mountains, cattle suffer from a fatal disease known as "trembles." Eating the flesh or drinking the milk of the diseased

cattle produces a disease in man known as Milk Sickness, very fatal but now much more rare than it used to be. But in an epidemic in New Mexico in 1908 a germ was discovered and named the *Bacillus lactimorbi*, which is supposed to be the cause of the disease. Sweating Fever was a deadly disease in England in the fifteenth and sixteenth centuries and still occurs as epidemics in France and Italy. The germ is still undiscovered. The same is the case with the Glandular Fever which occurs in epidemic form among children; with the Foot-and-mouth Disease which attacks all domestic animals, but especially cattle, sheep and pigs and occasionally extends to man; with Psittacosis, a disease among birds in Germany, France and Italy, sometimes conveyed to man, chiefly through parrots; with the Rocky Mountain Spotted Fever of America, which is transmitted by a tick, the *Dermacentor occidentalis*; with Swine Fever, with which experimenters have occasionally been inoculated while making post-mortem examinations on pigs; and with the Ratbite Fever which has been known for centuries in China and Japan and which is remarkable for the prolonged period of incubation, the symptoms sometimes not appearing till several months after the injury, but lasting, it may be, for years. So it is evident that there is still much land for the bacteriologist to possess. It is possible that some of the most deadly germs of disease will never be discovered, owing to the complete disappearance of the diseases. Typhus fever, for example, was in former days one of the most fatal epidemics, and its disappearance from the civilized countries of the world has been one of the triumphs, not of medicine in the strict meaning of the term, but of sanitation. It was becoming rare in Europe—it still lingers in Russia—just as bacteriology was coming into vogue, and the germ was never discovered. It is one of the most contagious of fevers, and no disease has caused a greater mortality among those who tended the infected. Ireland was in former days one of the

countries most sorely afflicted with typhus, and it is on record that during a period of twenty-five years among 1,230 physicians attached to institutions 550 died of this disease. What sanitation has done for typhus, vaccination is doing for smallpox, with the difference that while sanitation works independently of the weapons of precision with which bacteriology has been furnishing the healing art, vaccination was really an anticipation of bacteriology, or its foundation. There is a theory that cancer is caused by a bacillus, but hitherto the effort to isolate it has been unavailing. Its discovery would be one of the greatest "finds" in the history of medicine.

So far we have been considering bacteriology in its more purely scientific aspect, as a means of diagnosing and classifying diseases. The aid it has afforded in this respect is beyond dispute. To take the case of Indian fevers alone as an example, science can speak with a certainty and a confidence regarding their origin and their nature that were before impossible. It is now certain that a great many different fevers were formerly classed as malarial and treated as such that were not malarial at all. As regards diagnosis Rogers say,—and the ordinary practitioner is grateful to him for the assurance,—that it is possible to diagnose any fever by clinical signs alone, by temperature, pulse, etc., without the help of the microscope; but it is indisputable that the help of the bacteriologist is of the greatest value for confirmation and in case of doubtful diagnosis. The question remains, and it is one of the utmost importance, How far has all this research into the origin and spread of disease been useful in furnishing us with the means of curing disease? Has the advance in therapeutics been commensurate with that in diagnosis? Is any disease curable now that was incurable before?

To begin with, it is obvious that while sanitation works on lines that have been familiar for centuries it has been greatly reinforced by bacteriology. Everyone in an

intelligent community appreciates the benefits of a pure water-supply, but it is a valuable asset to the sanitary engineer to be able to demonstrate the presence in polluted water of the bacilli of cholera or typhoid fever, or to show that the number of tubercle bacilli in the lungs of a community is in inverse proportion to the number of cubic feet of air in their dwellings. Thus bacteriology can impart to sanitation a degree of scientific accuracy that would otherwise be impossible. But it can appeal to results of a more definite and direct kind to justify its existence. Much remains to be done in the way of applying to the art of healing the results of the science of germs; but the results already achieved are substantial. Bacteriology's own contribution to the means of curing disease is Serumtherapy, as a means of producing immunity. Immunity is either natural or acquired. Of all the multitudinous microbes that inhabit earth and sea and sky, only a small minority are pathogenic, producing disease in man. This means that man enjoys natural immunity against these germs. We know, too, that man is normally immune to certain germs that are pathogenic to the lower animals. Immunity that is acquired is the result of the effort made by nature to counteract the influence of the toxins introduced by pathogenic germs. If nature is successful in this effort, not only is the invader defeated, but the individual in many cases is protected from future invasions by the same enemy. This protection is seldom absolute; a person who has survived one attack of smallpox may have a second attack and die of it, but it is not probable. Nature counteracts the toxins by manufacturing anti-toxins, and the object of serumtherapy is to do this artificially for the double purpose of prophylaxis, or protection in anticipation of infection, and of cure after infection. It saves much trouble if we can get someone else to prepare our antitoxins for us. In the case of smallpox, the calf does this. For centuries it was a firm conviction amongst farming folk in England that an attack of

cowpox protected against smallpox. Jenner made his crucial experiment in 1796, taking matter from the hand of a dairymaid who was suffering from cowpox and inoculating it into a boy whom he subsequently inoculated from the pustule of a smallpox patient, with the result that the boy did not develop smallpox but that Jenner developed vaccination. But as early as 1774 there is a case on record of a Dorsetshire farmer, Jesty by name, who on taking cowpox successfully vaccinated his wife and two sons in order that they might not take smallpox. Much has been written on the question whether cowpox is a separate disease from smallpox, or smallpox modified by transmission through the cow. The weight of evidence is in favour of the latter view, but it serves our purpose here to say that for practical purposes we have in the lymph taken from a case of vaccinia or cowpox, whether in the child or in the calf, an antitoxin that renders the system to a large extent immune to the unknown toxin of smallpox. One of the most striking testimonies to the value of vaccination is that furnished by Kitasato in 1911 to the effect that in the Japanese army of more than a million men, engaged in a country where smallpox was at that time endemic, there were only 362 cases and 35 deaths. What is true of smallpox is true of vaccination, the immunity it confers is not absolute ; but the mortality in the vaccinated is from 5 to 8 per cent. of the number attacked, while in the unvaccinated it is at least 35 per cent. In the case of a number of infectious diseases, anti-toxins are prepared artificially in the same way in which Nature furnishes the antidote of smallpox, the horse, which has been described as a "prodigy of immunity," being used instead of the cow. The toxins of the disease are passed through the horse, whose blood serum is then found to contain anti-toxins which are used to produce immunity in man. One of the earliest and most successful applications of this method is in the case of diphtheria. Statistics show that among 183,256 cases of diphtheria treated in 150 centres

before the introduction of the anti-toxin the mortality was 38·4 per cent. In 132,548 cases treated since its introduction the mortality has been 14·6 per cent., and if the cases not treated with the anti-toxin are left out of account the mortality has been only 9·8 per cent. The anti-typhoid inoculation has not received so extensive or so prolonged a trial, but we have Leishman's authority for the statement that in the British Army the fever is six times more prevalent among the uninoculated than among the inoculated, while in the United States Army the liability to the disease is said to be ten times greater among the uninoculated. In the treatment of cerebro-spinal fever Flexner has produced a serum which is said to have reversed the mortality and recovery rates in some epidemics, so that whereas 75 per cent. of the cases died where the serum was not used, the same proportion recovered when it was used. As regards dysentery, Shiga reports that the introduction of serum treatment in Japan has reduced the mortality from endemic dysentery from 35 to 9 per cent. Preventive inoculation against plague in India has been more successful than any other single measure, although it is apparent that the combination of all possible means of prophylaxis is essential for combating so virulent a poison. As a result of wide experience it is estimated that the inoculation reduces the chance of infection by four-fifths, while the chances of recovery in case of attack are increased two-and-a-half times. We have less information regarding the effects of anti-choleraic inoculation, but good results are reported from Russia, and also from the Philippines. A serum for the treatment or prevention of tetanus is said to have reduced considerably the mortality due to Fourth of July celebrations in America. Various methods of serumtherapy are being tried for leprosy and some promise well. Swine fever is also being treated with good results on the same lines, while in the case of anthrax in France Huxley calculated that the money value of the discovery by Pasteur of its microbic nature and of the

preventive and curative measures based thereon was equal to the war indemnity paid to Germany, which, it will be remembered, was a hundred million pounds sterling. The death-rate from this disease among fowls alone has been reduced from 10 per cent. to 1 per cent. In the case of hydrophobia it has been mentioned already that the microbe has not yet been isolated, but Pasteur's specific is prepared by passing the virus, which is contained in the brain matter of the mad dog, through rabbits and using the spinal cords of these rabbits after a drying process which greatly diminished the virulence of the poison. In 1910, there were treated in the Pasteur Institute at Paris 410 patients who had been bitten by rabid animals without a single death. In India also the results have been significant and gratifying, but in a country like this there must always be a larger proportion of cases who cannot reach the institutes to receive treatment before the virus has begun to take effect. Once the disease has manifested itself, it is incurable. Hitherto it has been necessary for persons bitten to go for treatment to an Institute, but there is now the prospect, through improvements in method, of being able to supply the antidote for local use. In malaria the great service which bacteriology has rendered is to demonstrate the way in which quinine cures the disease. By means of the microscope we can actually see that quinine kills the parasite. In the campaign against tuberculosis the specific treatment by tuberculin, introduced by Koch in 1890, has not fulfilled the expectations which it excited at that time, and for that reason it has suffered from a neglect which is now being regarded as unmerited. It has again come into extensive use with satisfactory results in a class of cases which it is not yet possible to define very clearly, and there is little doubt that it will find a permanent place among the methods of fighting the "white plague." But the most important contribution bacteriology has made to this campaign is the discovery that tuberculosis is an infectious

disease. In India the problem is simplified by the fact, recently referred to by Sir Pardey Lukis, that the cattle in this country are exceptionally free from tubercle and that even if this were not the case the risk of infection from them is diminished by the almost universal custom of boiling the milk. If the issue in this way is narrowed down to the prevention of infection from man to man, the prospects of success are considerably greater. In addition to its value as a means of treatment, tuberculin furnishes us with a delicate method of diagnosis in obscure and doubtful cases. The serum of immunized animals has a beneficial action in other ways as well as by furnishing an anti-toxin. It is also bactericidal, killing the microbes that produce the toxins, and another very interesting phenomenon is what is called the opsonic action. In the blood there are white cells called phagocytes whose function it is to devour and destroy the invading microbes. The immunized serum helps this process by furnishing opsonins,—the word is derived from the Greek verb “to cook,”—which, acting on the microbes, renders them more palatable to the phagocytes. Still another useful effect of the serum is the agglutinative or precipitating action which it causes in certain cases where disease exists, furnishing in this way a means of diagnosis. The account that has been given of serumtherapy gives a very inadequate idea of the extent to which this method is now being used in medicine; illustrative instances have merely been taken from those departments in which the experimental stage has been passed and in which the results are assured.

There is still another way in which bacteriology acts as an auxiliary to the means of cure. Once the parasite which causes a disease has been discovered, a great impetus is given and valuable guidance is afforded to the effort to discover a drug that will kill it. It will be one of the red letter days in the medical calendar when we discover a drug that kills the tubercle bacillus or the

typhoid bacillus as surely as quinine kills the malarial parasite. The most notable achievement in this region, to which the name Chemotherapeutics is now being given, has been that of Ehrlich of Frankfurt, who, on the discovery of the parasite of syphilis, began to search experimentally for a drug which was likely, by chemical affinity, to "fix" and destroy that parasite. He at last found a drug, a compound of arsenic which he believed fulfilled the necessary conditions, and he named it at first "606," in recognition of the fact that it was the result of the six hundred and sixth experiment he had made with this object in view. It is now known as salvarsan. It is a very powerful agent, and opinion is still divided regarding its general applicability. It indicates, however, one direction in which medicine is moving with the prospect of beneficent results,—in the search, as Ehrlich himself says, for remedies that will fly, in the manner of the bewitched bullets, in pursuit of the enemy. What is wanted, and what in many cases seems now within reach, is a therapeutic arrow that will go straight to the bull's-eye, or which will split the disease-producing apple without injuring a hair of the patient's head.

There is another question that suggests itself in conclusion. A review of the part played by micro-organisms in the production and spread of disease may not unnaturally lead some readers to ask, how is it possible to escape disease, when the germs of it are distributed so plentifully and so universally? The answer has been hinted at already. In most cases it is not a solitary microbe here and there that produces disease. They must attack in force, and they must overcome the powers of resistance with which Nature has provided us, before they can accomplish their evil design. One swallow does not make a summer, and in the microbic warfare it is very fortunately *not* true that every bullet finds its billet. Theoretically, a single consumptive patient may expectorate a sufficient number of bacilli to infect all mankind; but as a matter

of fact we find that these bacilli, if freely diluted in plenty of fresh air, are harmless. Microbes like the pneumococcus are frequently found in the air-passages of healthy individuals, and during an influenza epidemic the microbe of that disease must be everywhere. Then not only must the seed be sown in sufficient quantity to produce disease, it must also find a soil suitable and prepared for it. There is good reason to believe that the healthy man is bacillus proof. When Koch was experimenting with the cholera bacillus, he found that he could give healthy fowls these bacilli with their food, without doing them harm, but when he first neutralized the natural acidity of the stomachs of the fowls by administering alkalies, they developed cholera when they were fed as before with the germs. In fact the gastric juice of the healthy human stomach seems to be charged with active antiseptic powers, and it is fortunate that this is so, for were it not so the world would long ago have been depopulated. It is one of the evidences of a beneficent Creator that whenever the body is wounded natural forces are at once brought into action to repair the damage, and that whenever pathogenic germs find an entrance the means of neutralizing them are at once provided. At the same time the natural immunity of the healthy man is not a plea for the toleration of the microbe. *Bacillus est delendus* is the law, for the very good reason that the healthy man who harbours germs of disease is like the man in the fable who kept a frozen snake in his bosom. In certain conditions, over which he may have imperfect control or none at all, the natural forces that protect him may be impaired or the powers of the germs to produce disease may be reinforced. It is specially desirable to bear this in mind in view of the discoveries that have been made regarding the extent to which apparently healthy persons may be the "carriers" of disease. An individual who has had enteric fever, for example, may continue to harbour the bacilli and to

distribute them for years after recovery from the fever. As the strong ought to bear the burdens of the weak, the healthy man, proof, it may be, against infection, should avoid being a possible source of danger to the susceptible unhealthy man. On the whole, however, the message of modern medicine is a hopeful one, enlarging our views of the extent to which the forces of Nature are working for the good of man. It is the effort of medicine to follow Nature as its teacher, to imitate and to co-operate with her methods of cure. The old phrase *Vis medicatrix Naturæ* is receiving a new and wider interpretation, and the science that knows no frontiers, in its international effort to diminish the sum of human suffering from preventable disease, is also bringing the various races of men into closer fellowship and sympathy, and in this way doing much to promote peace and good will among them.

J. M. MACPHAIL.

Bāmdah.

VESTIGES OF OLD MADRAS.

BY C. E. BUCKLAND.

COLONEL LOVE has treated his subject so thoroughly that nobody need ever again write the history of the period 1640 to 1800. In his "Early Records of British India" and "Madras in the Olden Time," Mr. Talboys Wheeler mentioned the want of records at Madras before 1670 and that little or nothing was known of those early days. Mr. Foster's "Founding of Fort St. George" is referred to in Sir Charles Lawson's "Memories of Madras." Colonel Love has supplied the gap 1640 to 1678 from the India Office archives and other sources. The *ipsissima verba* of the old papers are often most interesting, as they are authoritative.

The early voyages of European nations to India and the Spice Islands are well known. From 1600 onwards the East India Company contended for the international prize, the commerce of the East. Their earliest factories were established, at Bantam in Java in 1603, at Surat in 1612 and at Masulipatam in 1611. From this point these volumes commence. Some attempt will be made here to indicate briefly the chief events and the salient features of this work. But it is impossible to reproduce all the changes and developments constantly recurring in the numerous matters to which successive authorities had to attend as circumstances required. Such matters were: the territorial grants, the fortifications, their extensions, improvements and repairs, the topography, the buildings, lands and roads; the names of the streets, gates, bridges, the town houses and their owners, the suburban building

* Indian Records Series. Vestiges of Old Madras, 1640-1800. Traced from the East India Company's Records preserved at Fort St. George and the India Office and from other sources. By Henry Davison Love. 3 vols. With maps and illustrations. John Murray. 1913. 36s. net.

sites and town development ; the churches, temples and mosques, the gardens and garden houses ; the chief residents, the strengths of the establishments, civil and military ; the garrison, the military operations in the neighbourhood and beyond ; the Company's general table in the Fort ; the rents, revenues, customs dues and Customs House ; Law and Justice, the Courts and administration of Justice, the Mayor and Aldermen, the native functionaries, the chief merchants ; the local and sea-trade, the marine officers, the industries ; the medical officers' and department ; the police, the prisons, the crimes and their punishments ; schools and education, the post office, coinage and currency ; the surveys and maps, the observatory, public ceremonies, famines, cyclones ; the newspapers, social life, caste disputes, etc., etc. Colonel Love's excellent Index will facilitate reference to any subject on which fuller information is required.

Masulipatam was the port of the independent Mahomedan Kingdom of Golconda, which conquered the Hindu State of Vijayanagar and expelled the Rajah, forcing him to escape to Chandragiri, 75 miles from Madras. There he ruled through local Naiks, almost independent Chiefs. To avoid the oppression of the Golconda Officers at Masulipatam, the English, after a brief partnership with the Dutch at Pulicat, erected a factory at Armagon in 1626. When the Masulipatam factory was restored in 1622, the Armagon Naik became unfriendly ; a fresh departure was arranged. Francis Day, the Chief at Armagon, sailed to Madraspatam, three miles north of the Portuguese San Thomé. He obtained from the local Naik a grant of territory and privileges, with licence to build a fort and settle. Andrew Cogan was sent from Surat, across country, to be Agent at Masulipatam ; *en route* he obtained from the King of Golconda a *firman* for the coast trade. The separate *firman* obtained by Day "for privileges in Medrasspatam" was dated the 22nd July 1639 ; thither Cogan and Day proceeded early in 1640, when Armagon was dismantled. The Naik

had engaged to build a fort ; as he contemplated only a stockade, Cogan and Day erected a permanent work themselves. The site chosen for the Fort St. George was on the sandy bank between the Elambore river and the sea, just south of the village of Madraspatam, with a fishing hamlet adjacent. The Naik's grant included the revenue of the town for two years, to be subject in future to payment to the Naik of half the annual collections. The original Fort, which survived until 1714, measured 108 yards from North to South and 100 yards from East to West ; the four bastions at the angles were not completed for fourteen years. Colonel Love displays a professional engineering interest in the details of the progress. A new town, known to the natives as Chinapatam, grew up round the Fort, the whole settlement being regarded as Madraspatam, divided into the White Town and Black Town. The first cyclone occurred in March 1640, before the settlement was three weeks old ; sixteen other cyclones are enumerated by Colonel Love. This part of the coast is liable to violent storms. The garrison consisted of 35 Englishmen and 35 natives. Immigrants were successfully attracted to the new settlement, the building of houses round it was encouraged. Portuguese came from San Thomé in expectation of receiving employment and immunity from some import duties. Native artisans flocked to Madraspatam, including 300 to 400 families of weavers in the first year. When Day left for England, Cogan, during his absence, transferred the seat of Agency from Masulipatam to Madras, which thus became the Chief Factory on the coast, subordinated to Bantam from 1642. In 1652 Fort St. George became a Presidency, replacing Bantam as the Eastern Centre of Government, but in 1655 it was reduced to an Agency under Surat. Cogan was censured by the Company for establishing the new settlement. When Day returned, Cogan resigned charge ; Day also retired in 1644. The Capuchin Mission of Madraspatam was founded in 1642 to minister to the Portuguese

residents, and a Catholic Church erected, but the Protestant English were neglected till 1646. The expulsion of the Capuchins was subsequently proposed, but they were retained.

The Carnatic fell into serious anarchy—domestic discord combined with foreign aggression. The Rajah of Vijayanagar conferred authority on a new Naik, quarrelled with other Naiks, declared war on the Dutch at Pulicat, but by a fresh grant confirmed the privileges of the British with additions. The Golconda King sent his General, Mir Jumla, to attack the Rajah, who fled and was subdued. Before the end of 1647 the King seized the Carnatic and confirmed the British in Madras. The British quarrelled with the Portuguese and assisted Mir Jumla's attack on San Thomé. Peace was patched up, but friction continued for some years. The establishment at Fort St. George was gradually increased and a commissioned officer was appointed to the garrison. Bitter dissensions, common to the Company's Councils, occupied the whole of President Baker's rule, 1652-55. They originated from a dispute among the natives in the Company's service, such as the town functionaries and the merchant contractors. Charges and countercharges were made. The President had some of the Councillors arrested. The caste disputes also gave much trouble. The distinction between Castes of the Right and Left Hands is recognized only in Southern India; the origin of the appellation is obscure. The Right claim authority to ride horses in processions, to bear certain standards and use twelve pillars for their marriage-booths. They deny these rights to the Left-hand Caste and allow them only eleven pillars. The Left-hand claim these privileges. Rioting occurred, a general strike took place and each contending party deserted the town in turn. When the Madras Agent, by way of retaliation, seized a junk of Mir Jumla's further trouble ensued. Madras was blockaded by the local Governor, and for seven months in 1657 the Moslems

maintained a strict blockade of Madras, varied with occasional fighting until, by an agreement, the English obtained undisturbed control of the Fort for an annual payment. This attack showed the weakness of the Madras fortifications, which were strengthened, an outer fort being also added to the inner, the Castle. The Golconda forces and the Hindus continued to fight; the former besieged and took San Thomé from the Portuguese in 1662, rather than lose it to the Dutch. The rise of the Golconda dynasty had effected little change in the coinage; the pagoda (a word of obscure origin) was the standard coin of Southern India under Vijayanagar rule. The Naik's grant of 1639 authorized the Company to mint and issue coinage. By 1685 a silver currency was coming into use as in Bengal. The Company secured a patent from James II. and in 1687 ordered the issue of silver from the Fort mint, the rupees to be similar to those of the Moguls.

The dismissal of Thomas Chamber in 1662 for insubordination left the Madras Agency vacant for Sir Edward Winter, an old Company's employee, who was in England. His tenure of office was energetic and strenuous. He pushed on the construction of public works and the development of useful institutions: his expenditure on buildings was regarded as excessive. A new Nawab of the Carnatic approached the town with an army; the garrison was increased from England. A supervisor was sent out to investigate local complaints against Winter, who defended himself. Before his explanations reached England, Foxcroft arrived in June 1665 to supersede Winter, who was allowed to stay in India as second in Council. In September Winter caused Foxcroft to be arrested for seditious and treasonable language against Charles II., imprisoned him and seized the Government. Foxcroft, writing to the Company, charged Winter with improper practices in commercial transactions with the native chief merchants. Winter reported to the Company his version of the

revolution, with his reasons for assuming the Government after Foxcroft's arrest. This usurpation lasted till 1668. Foxcroft's letters from the prison to the Company were conveyed, by the aid of Capuchin fathers, to Masulipatam and forwarded thence to England. When the Company heard of the revolution, they obtained from the Government a strong Commission to reduce Fort St. George and restore Foxcroft, by force if necessary. Winter argued and secured terms, but showed no further fight. Foxcroft was reinstated and appointed Governor, the first vested with judicial powers under a Charter. Winter's case was further investigated by Sir William Langhorn, a Commissioner sent in 1671 from England, and he finally left India in 1672. A main feature of Foxcroft's administration was the protracted dispute with the Nawab regarding dues payable to the Suzerain at Golconda, which was only concluded after his departure. Early travellers between 1658 and 1673 have left interesting accounts of Madras, from which Colonel Love has made long extracts. Dr. John Fryer of the East India Company's service fully described Madras, its natural features, buildings, etc., as he saw them in 1673.

During Langhorn's rule San Thomé was brought into close relations with Madras; eventually it came to form part of the town. Its fame rests largely on its traditional associations with the Apostle St. Thomas, said to have suffered martyrdom at St. Thomas' Mount, eight miles from Madras, and to have been buried at St. Thomé. The date of the first Portuguese settlement there is uncertain. A church at the adjacent native town of Mylapore has 1516 on an inscription, but its authenticity is doubted. It is believed that a town grew up gradually round a monastic settlement formed there about 1522, which rose to eminence between 1567 and 1582 and had fortifications and numerous churches. The Dutch blockaded it and seized all vessels leaving it. Threatened by the Dutch and besieged by Golconda, it yielded to the latter in 1662, as

already stated. But in 1672 the Golconda forces were ousted by the French who, passing along the coast, demanded victuals but were refused, whereupon they stormed it and expelled "the Moors." The French were beleaguered during their two years' occupation. Blockaded and attacked by Golconda and the Dutch combined, San Thomé was starved into capitulation and made over to Golconda. The fortifications were partly demolished then and finally in 1697. The Mahomedans leased it to Verona, the native chief merchant of Madras, from which Lingappa ousted him. The Portuguese recovered possession in 1688 of the dismantled and partly-ruined town, but exercised no authority. San Thomé became British territory in 1749.

To return to Langhorn. While he was Governor, news of the declaration of war by the Dutch against the English and French was received in 1673. Though the Dutch attacked the Company's squadron, Langhorn maintained peace on land; the town defences were repaired. His six years of office were chiefly devoted to domestic affairs. The Government records then commenced. The amount of the annual payment to the Nawab was finally settled as the Town Rent and paid until the middle of the eighteenth century. The assigned British territory was specified. Triplicane was separately recognized in 1676 as included. The King of Golconda left his government to his ministers. In 1678 a Mahratta force approached Madras; thereupon the garrison was again increased. It had reached 241 British Infantry, 14 Artillery, 163 Portuguese Militia, 550 native soldiers, and had been reduced. A Commissioner from England investigated the conduct of affairs at Madras. He designated the portions of Madras as English Town and Blacks Town: the names White Town and Black Town were adopted. A Civil Service was established in 1675, graduated from apprentices on £5 to the Governor on £300 a year. A schoolmaster for the Fort was engaged.

The actions of each Governor cannot be reproduced at length, but the rule of the energetic Streynsham Master, Langhorn's successor, requires notice. While second in Council he had inspected Masulipatam and other subordinate factories in the Bay of Bengal; as Governor he made two long inspection tours in the same directions. A born organizer and disciplinarian, methodical and religious, possessed of business acumen, he gave written directions on every point—including morals—while trusting men of local experience. Sivaji's forces approached Madras in 1678. Lingappa, the local Governor of the neighbourhood, gave trouble regarding food supplies, whereupon a militia force was embodied. St. Mary's Church in the fort was founded in 1678 and opened for service in two and a half years; public gardens were made; the administration and conservancy of the town received attention; the courts of justice were reorganized. Master maintained peaceful relations with the Dutch. His general independence was censured by the Company; he was blamed for acts of commission and omission, and summarily dismissed four days before his five years' covenant expired, without being called upon to submit his defence, for which he had stipulated. Like other Indian officers he left India in 1681 a disappointed and unappreciated public servant. His interesting diaries have been published in the Indian Record Series.

The next Governor, Gyfford (1681-87), had special instructions to suppress interloping, improve the revenues, and establish factories to the southward. Interlopers were independent merchant captains who, not being Company's servants, endeavoured to share in the trade of the country. The most prominent was Thomas Pitt (grandfather of the Earl of Chatham) who was afterwards Governor. Settlements were made, with the permission of the Mahrattas, at Gingee, at Porto Novo and Cuddalore; in 1685 ten factories were dependent on Madras. But in 1687, owing to trouble with the Mogul, it was decided to dissolve

the factory at Masulipatam and two others. In fear of Mogul aggression and the impending downfall of the Golconda dynasty, which occurred in 1687, a troop of cavalry was formed, on the advice of the Company, and an infantry militia was embodied. The Portuguese troops were disbanded for attempting mutiny. A siege of Madras by the Moguls was feared in 1687, when they extinguished the Kutb Shahi dynasty of Golconda, and preparation was made to meet it, but the local administration was in friendly hands and the Moguls did not appear. A Court of Admiralty was established in 1686 for the suppression of interlopers. A Judge-Advocate of Madras, Sir John Biggs, came out from England in 1687. His first duty was to preside at the Quarter Sessions. He was also Judge of the Admiralty Court and Recorder of the Mayor's Court : but he soon died of fever. Colonel Love mentions a strange request from the Company, with which the Madras authorities had to comply :—“ His Majesty hath required of us to send to India to provide for him one male and two female Blacks, but they must be dwarfs and of the least size that you can procure ; the male to be about 17 years of age, and the female about 14. We would have you, next to their littleness, to choose such as may have the best features, and to send them home upon any of our ships, giving the Commander a great charge to take care of their accommodation, and in particular of the female.”

The chief events of Elihu Yale's rule as Governor (1687-92) have been conveniently summarized. They were “ the creation of a Mayor and Corporation for Madras ; the erection of a new Supreme Court, the evacuation of the Northern Coast factories in consequence of war with the Moguls ; the arrival of Job Charnock and his company from the Bay, and his subsequent return to found Calcutta ; the extinction of the Dynasty of Golconda ; the purchase of territory at Cuddalore, and the acquisition of Fort St. David ; a naval action with the French in Madras Roads ; and the resettlement of the Portuguese at San Thomé.”

Owing to the approach of the Mahratta forces, hostilities with the Mogul, and war with France, Yale's rule was a period of military activity. A native contingent was organized. The Company wrote :—" We must for ever after keep ourselves a Martiall Nation in India." Yale remained seven years in Madras, after his supersession in the Government. In recognition of his munificence Yale's College and University in America were called after him. So late as 1687 the trade in slaves was sanctioned under regulation, a duty of one pagoda being charged for each slave exported from Madras by sea ; 665 were exported in one month. The use of slaves for domestic purposes had always been recognized, sales and purchases were invariably registered. But soon the despatch of slaves from the port was altogether prohibited in deference to the aversion of the Mogul power to the trade.

Higginson had not long assumed office as Governor in 1692 when Sir John Goldsborough arrived from England and became President ; he remained in Madras eight months, investigating charges against Yale and others ; he then proceeded to Bengal, where he died. Higginson's administration " proved an era of peace and progress. The city of Madras was developing rapidly. The Factory-house in the Inner Fort, the Mint and Choultry were all rebuilt. By the Corporation a Town Hall was erected and that body become responsible for the city's conservancy. The fortifications of the White Town were put in order, and Black Town rampart was repaired. Regulations were framed for policing the city, controlling the new Hospital built by Yale, and managing the principal temples and mosques. Fresh territory was acquired in the shape of the important suburban villages of Egmore, Pursewaukum and Tandore."

The period of Thomas Pitt's Governorship (1698-1709) " proved to be the golden age of Madras in respect of the development of trade and increase of wealth." Though he

had been a prominent interloper, he was employed by the Company. The Old and New East India Companies were amalgamated and his term as President was extended. The Factory of Masulipatam was resettled. In 1701 the new Nawab of the Carnatic, Daud Khan, who had previously visited Triplicane and San Thomé, appeared at the latter place with 10,000 troops. Pitt regarded his conduct as equivalent to a declaration of hostilities and prepared to fight, on which the Nawab changed his attitude. In 1702 he reappeared and established a strict blockade of Madras and other British possessions. He retired on receiving Rs. 25,000 and twice later visited San Thomé without giving trouble. The area of the settlement was extended by the grant of some additional suburban villages. Further caste disputes, as to the exclusive rights to use certain streets, lasted for a year and again recurred. Pitt is best remembered by the Golconda diamond of 400 carats which he purchased from a native merchant, sent home, and ultimately disposed of (when reduced by cutting to 137 carats) to the Regent of France for £135,000. There are ample accounts of Madras in Pitt's time by Salmon, Lockyer and Hamilton. Pitt's map shows the topography; several other maps of different times are reproduced, by Colonel Love. There are also descriptions of San Thomé and the neighbouring Mount. "The chief features of Harrison's administration, 1711-17, were negotiations regarding the Madras villages, an embassy to the Emperor, difficulties with the Native Governments at Gingee and Vizagapatam, the revolt of the Deputy Governor of Fort St. David, the demolition of Cogan and Day's fort and its reconstruction as the Fort Square; the rebuilding of the barracks, hospital, and mint, and the completion of Egmore Redoubt." The Madras embassy to the Mogul was greatly delayed, and eventually proceeded from Bengal under Surman in 1714 but the Emperor's *firman* for Madras was not obtained till 1717. Trade was now particularly thriving, though it afterwards declined, partly owing to the ravages

of the Mahrattas and the scarcity of grain and cotton. During the next 25 years nothing specially affecting Madras took place. Several Governors resigned, were dismissed or superseded; the times were generally peaceful, free from external troubles and internal commotions. A new Charter of George I., received in 1727, created a Body Corporate for Madras, consisting of a Mayor and nine Aldermen, greater judicial powers in Civil cases being desirable owing to the development of the settlement. Criminal cases were to come before the Sessions Court. In Benyon's Governorship (1735-44) Nadir Shah invaded India, three Nawabs of the Carnatic met violent deaths, the Mahrattas made hostile advances in the Carnatic, and the British acquired additional territory near Madras. The total revenue of Madras amounted in 1737 to Pagodas 77,000, of which 45,000 were from Sea Customs and 8,000 from Land Customs. The active Society for Promoting Christian Knowledge had in 1736 three Missionaries in Madras and six more followed directly.

While Nicholas Morse was Governor (1744-46) war broke out between France and England—the war which was fought in the Carnatic for supremacy in India. In vain the Nawab of the Carnatic forbade all hostilities. The details cannot be given here. Madras, after a moderately severe bombardment by sea and land, capitulated by treaty on 10th September 1746 to Mahé de la Bourdonnais, on the promise of its restoration for a ransom. The Nawab endeavoured to take the city from the French but failed. Thereupon Dupleix, Governor of Pondicherry, on the 30th October repudiated the treaty of capitulation and seized the town, without justification, for the French East India Company; it was restored in 1749 after the peace of Aix-la-Chapelle in 1748, but for the three years was subordinate to Fort St. David. Morse was carried prisoner to Pondicherry, but released in exchange, and summoned to England to account to the Company for his proceedings. His conduct was not blamed. Clive as a

young writer had reached Madras in 1744 and took part in the war as an Ensign, as described in Macaulay's Essay on him. Major Stringer Lawrence arrived at Fort St. David in 1748 to take the military command. His association with Clive led to great results in the war with the French. In 1749 possession was taken of the town of San Thomé by the English. Madras remained subordinate to Fort St. David, as stated, for three years (1749-52) when it again became the Presidency ; the rent (the share of the Customs dues) paid to the Nawab for the Settlement was remitted. Defence works were commenced there and at San Thomé. The war in the Carnatic centred on Arcot and Trichinopoly. The presence of Stringer Lawrence as Commander-in-Chief from 1753 and of Clive led to British victories. The war lingered on till 1754 when Dupleix was superseded and left India.

It was considered desirable to issue a fresh Charter for Madras, reconstituting the Corporation and other Courts interrupted by the capture of the town. George II's Charter dates from January 1753. An Engineer General in India was appointed and ordered to examine Forts St. George and St. David on his way to Bengal. In September 1754 Colonel Adlcrcon's Regiment disembarked at Fort St. David, the first British regiment to reach India. Adlcrcon, being the senior, superseded Lawrence as Commander-in-Chief. A map of 1755 shows the transition at this time from ancient to modern Madras.

George Pigot's administration (1755-63) was active and eventful. During it "the Company, from a trading corporation owning isolated towns, forts and factories, blossomed abruptly into a ruling power controlling vast territories." Nawab Muhammad Ali entered Arcot ; Angria's nest of pirates was finally exterminated by Watson and Clive ; there were also "the capture of Calcutta by Surajah Dowlah, and the tragedy of the Black Hole ; the relief expedition from Madras under Watson and Clive, which recaptured Calcutta and took Chandernagore ; the battle

of Plassey ; the loss of Cuddalore and Fort St. David ; the siege of Madras by Lally ; the capture of Pondicherry," which closed the long struggle with the French. All these events concerned Madras to some degree, but belong to the general history of India. When Lally, after taking Cuddalore and Fort St. David, concentrated his efforts on the attack of Madras, the resistance offered by the forces under Stringer Lawrence was so stubborn that he was compelled to raise the siege when it had lasted 67 days, from 12th December 1758 to 17th February 1759. The long war ended in 1761 with the surrender of Pondicherry to Eyre Coote. Its defences were entirely demolished. Pigot's salary as Governor was increased from £300 nominal to £3,000 actual, and other salaries were raised subsequently. An expedition was organized at Madras, which effected the subjugation of the Spanish settlement of Manila.

The administrations of the Rev. Robert Palk, Bouchier, Du Pre and Wynch, which lasted from 1763 to 1775, were marked by few events of local interest. A cavalry force under Tippoo, the son of Hyder Ali the usurper of Mysore, then allied with the Nizam of Hyderabad, raided the neighbourhood of Madras in 1767, and in 1769 Hyder himself, at the Mount, dictated terms of peace to Madras. Muhammad Ali, the Nawab of the Carnatic, established for himself a permanent residence in a palace at Madras, and was much honoured by the Mogul and the highest English personages ; he became deeply indebted to the Company. Mrs. Kindersley visited Madras in 1765 and recorded her impressions. Fort St. George was completed, to its present shape. Sir John Lindsay, a plenipotentiary from the British Government to the Nawab of the Carnatic, independent of the Company, was sent out in 1770, but the division of authority proved harmful ; he was succeeded by Harland ; on the latter's retirement the appointment ceased. Tanjore was conquered by the Madras Government for the Nawab, the Rajah deposed.

and the State transferred to the Nawab. A water-supply for Madras was carried out.

Warren Hastings was Member of Council at Madras, 1769-72, and did much to develop the resources ; he was the first to propose a pier. From 1774 the Madras Presidency became subordinate to the Governor-General of Bengal. When Lord Pigot was sent out in 1775 to restore Tanjore to the Rajah a struggle took place between the two parties in the Council over the proceedings connected with the rendition. Lord Pigot suspended the Members opposed to him and arrested another. The opposition, being in a majority, had, on the 24th August 1776, Lord Pigot arrested for various arbitrary and illegal acts, suspended the minority, and appointed the senior Member of Council to be President and Governor. Lord Pigot was kept prisoner at the Mount. In 1777 the Court of Directors ordered his return to England and the return of the usurping majority ; constituted a new Government and ordered an enquiry on certain questions. Before these orders reached India, Pigot had fallen ill at the Mount and died on the 11th May 1777 at the Company's garden house. At the inquest the Coroner's jury found a verdict of wilful murder against 11 persons, but the proceedings against them were quashed judicially. Four Members of the majority were prosecuted in England and fined £1,000 each.

Sir Thomas Rumbold succeeded as Governor in 1778. In that year Pondicherry was again taken from the French and the fortifications demolished. An expedition against Mahé was successful in 1779. Rumbold's Government quarrelled with Hyder, the Nizam, and the Supreme Government. In two years he left India and was dismissed by the Directors. At this time the Eurasian problem first attracted public attention, but a philanthropic scheme suggested for the benefit of the community was not acted upon. The Nawab Walajah's debts were a constant source of embarrassment to all concerned. Several provisional

Governors held office during the next two decades. In 1780 Hyder Ali invaded the Carnatic and devastated the country for fifty miles round Madras, raiding the suburbs. The Madras Government was wholly unprepared. Hector Munro took the field; Colonel Baillie's force, marching to join him, was annihilated by Hyder, with appalling slaughter. Munro retreated to Madras. Eyre Coote was despatched from Bengal with troops to the rescue. He was in the field against Hyder when Lord Macartney arrived as Governor. After gaining several victories Coote died in April 1783. Macartney was much hampered by his Councillors,—with one of whom he had a duel, and another was dismissed (General James Stuart, of whom the Nawab's son said "Sometime General Stuart catch one Lord; now one Lord catch General Stuart")—also by a famine, by financial embarrassments and by his strained relations with the Nawab. Peace was concluded with Mysore in 1784. Successful operations were undertaken against the Dutch settlements on the coast; naval engagements with the French were fought off Madras in 1782, many casualties at sea occurred.

During the Government of Major-General Sir Archibald Campbell (1785-89) the country enjoyed rest from war and "extraordinary progress was made in the development of peaceful institutions." "To the medical officers of the period Madras was indebted for the advancement of knowledge in Natural Science, especially in Botany." Attention was subsequently paid to sericulture and a botanical garden established. The first Madras newspaper, the *Madras Courier*, was founded in October 1785, and recognized as the medium for general notifications: it was followed by the *Madras Gazette* in 1795. An exchange building was constructed for the resort of merchants. The Assembly Rooms or Pantheon dated from about this time. All traffic in slaves was prohibited in 1790. Major-General Medows, Governor of Bombay and of Madras (1790-92) successively, was absent from Madras almost the

whole of his nominal rule of two and a half years, being engaged as Commander-in-Chief in the war with Tippoo, who had invaded Travancore. Lord Cornwallis, the Governor-General, himself assumed command, took Bangalore and some little hill forts and accepted Tippoo's submission on terms ; he also made a new agreement with the Nawab Walajah. Cornwallis was received with enthusiasm by the people of Madras. After Medows, Sir Charles Oakeley was Governor for only two years ; during his rule Pondicherry was captured in 1793 for the third time. During Lord Hobart's rule the old Nawab Muhammad Ali, Walajah, died in 1795, greatly in debt. Lord Hobart's proposals for dealing with the debts led to his recall. Another war breaking out between England and Holland, expeditions were despatched from Madras which subdued Malacca and Amboyna, Trincomalee and Colombo. In 1796 the first light to guide mariners and navigation was affixed to the roof of the Exchange. Hobart's departure was deeply regretted. He was subsequently President of the Board of Control. Tippoo Sultan was watching for an opportunity to resume his quarrels with the British. Lord Mornington, the new Governor-General, seeing this took the initiative and ordered military preparations to be begun at Madras. He himself, without immediately superseding the new Governor, Lord Clive, repaired to Madras, to avoid the delay of referring questions to Calcutta. The war ending with the death of Tippoo at the taking of Seringapatam on the 4th May 1799 is related in history. After this event Lord Mornington established a Censorship of the Madras Press. The Madras Presidency was increased by the addition of four, eventually seven, districts. The Mysore standards were presented to the Governor-General at Madras with great ceremony and the 4th May was observed, for many years, as a day of rejoicing. In 1798 a Recorder of Madras was appointed, merged afterwards in the Supreme Court of Judicature. Lord Clive proposed a number of changes in the details of

administration, which were gradually introduced. A treasonable conspiracy between the Nawab and Tippoo having been discovered, the Carnatic was virtually annexed, five more districts being added to the Presidency. As Colonel Love truly intimates, this extension of territory concludes one epoch and commences another. Interest in the affairs and institutions of the town diminishes in comparison with the problems of the Presidency. Indications of this change have appeared in the records of the growth of the settlement which was originally effected for commercial purposes. The only regret is that the work stops at 1800. It might well have been continued to the Mutiny of 1857, from which another epoch dates in India. The ten Appendices and the learned notes throughout the volumes contain a quantity of information thus rendered easily accessible. Every officer employed in Madras will be indebted to Colonel Love for the historical knowledge which he has made available and many other readers will study the volumes with pleasure. The illustrations, maps and style of publication are as good as art and skill can make them.

C. E. BUCKLAND.

SOME ITALIAN IDEALS OF CULTURE AND THEIR INFLUENCE IN ENGLAND.

BY J. W. HOLME.

“**H**E has been brought up in the manners and customs of Italy, which the English esteem more than those of any other country.”* Michiel, the Venetian ambassador to England in 1557, in one of those illuminating reports to the Doge and Senate which envoys were expected to present on their return, accounts thus for the popularity in England of the Duke of Savoy, suitor for the hand of Princess Elizabeth. The words betoken the strength of those Italian influences which were to colour so deeply English life and thought in the sixteenth and seventeenth centuries. From the time when Henry VII “bought Italian furniture, kept an Italian chaplain, corresponded with Italian courts, and admitted the Duke of Urbino to the Order of the Garter,”† these influences had been gathering force. Clerical, commercial and diplomatic intercourse between the two nations had increased and had affected the life of England in diverse ways. The Court was the central scene ; it was there that the envoys from Italian States, with their brilliant retinues and lavish entertainments, played their great part in the introduction of Renaissance ideals into England. Their behaviour, apart from purely diplomatic duties, was well calculated to stir the minds of educated Englishmen to emulation, for they were already looking to Italy for the coming light. The splendour and taste of their equipment, their lavish display at banquet and festival, their new ideas of life and government, all tended to produce an Italian tone in

* Cal. State Papers (Venetian), 1557, No. 474.

† H. A. L. Fisher, *Pol. Hist. of England*, V. 151.

a court already disposed to gorgeous show. "I have not failed to give banquets, and to live grandly and nobly for the honour of the state,"* writes Carlo Capello, Venetian Envoy in 1535. Soranzo's report of 1554 is additional evidence of the growing desire of the English Court to adopt Italian customs. "During my residence in England as the Signory's Ambassador, I have always been treated with the greatest marks of goodwill.....I have been most graciously treated by Queen Marywhen I frequently visited her and did her service by procuring for her many articles of value from Venice, much to her satisfaction. I can assure the Doge and Senate that the Queen and the whole court hold the prudence and power of the Venetian Republic in very great account."†

The Italian courts, from which these and other envoys came, were the product of peculiar circumstances. The Renaissance, among its many effects, had turned men's thought from the dry contemplation of a scholastic hereafter to the vivid daily life around them. Where such feeling had been expressed before, as in Chaucer and Boccaccio, it had been a revulsion from the rigour of the schools and the church, rather than the result of complete upheaval and re-adjustment. With the influx of classic ideals, however, and their application to contemporary life, Nature and Art had assumed different meanings; instead of being strained and distorted to fall in line with a rigid theological attitude they became more and more regarded for their own sakes. The external world became a means to an end—the gratification of man's bodily and intellectual needs. Classic literature had disclosed a new-old conception of the place of the individual in the world, and the degradation of the Church only served to strengthen ideals of spiritual liberty and of the dignity of man. A new Art, a new Literature, went hand in hand with a new Life, in which intellectual

* Cal. State Papers (Venetian) 1535, No. 54.

† Ib. 1554, No. 934.

and physical pleasures bulked large. Mediævalism, with its cold ideals of the disparagement and subjection of the body, had passed, and the men of the Renaissance, in their childlike delight at the new bright worlds opening before them, were so dazzled that they swung to an opposite extreme.

While France, Germany and England had been ground under the heel of feudalism, Italy had developed on vastly different lines. Split up geographically into many states of various sizes, it had fostered the growth of states which became the nuclei of flourishing provincial life. Thus culture and progress, confined, outside Italy, to the capital towns, became here much wider-spread. Whether the States were Republics, ostensibly as in Florence or really as in Venice, or whether they were practically absolute monarchies, the result was the same. The reigning prince was brought up in the newer ideals of culture, and thus was impelled to gather round him poets, scholars, architects and painters, who in contact with the professional courtiers and men of affairs, formed groups in which mutual reactions produced a new and hybrid personality, the scholar-gentleman. The life led by these little circles was almost fantastically brilliant. Their surroundings, beautiful enough by Nature, were rendered even more gorgeous by the erection of magnificent palaces placed often amidst delightful gardens. These architectural triumphs, by reason of that zeal for collection which made sixteenth and seventeenth century Italy a vast museum, became treasure houses of classic and contemporary art.

It is well known how the greater citizens of Florence,* enriched by banking and trade, turned in their leisure to art and letters. Under the Medici, the city became the glorious centre of the intellectual awakening. Lorenzo, himself no mean poet, gathered round him the greatest of the lettered Italians. He was the ideal scholar-gentleman,

* Oliphant Smeaton: *The Medici and the Italian Renaissance*. 1901.

well read in Greek, especially in the dialogues of Plato, and could hold his own in argument with Ficino and Pico. Few took a livelier interest in Art; he was both friend and patron of the men whose work made Florence luminous. Foreign scholars no less than native shared his bounty, for Reuchlin, Grocyn, Linacre and Fleming were welcomed and supported in his house. Pollaiuoli, Luca della Robbia and Andrea da Castagna, under his protection, did much to advance the methods of their respective arts. Gem-engravers, majolica-workers, silk-weavers from Bruges worked quietly and successfully for their magnificent patron. Yet his energy in state affairs was as splendid and productive as that which he devoted to the courtly and popular pageants of the brilliant years from his accession to the Pazzi conspiracy.

Urbino,* perched high upon a spur of the Apennines, exhibits many of the conditions which were to be found, in varying degrees, in other courts of Northern Italy. Its situation, the beauty of its surroundings, and the soft salubrity of its air, were famous and often praised. Among the finely furnished and lavishly decorated rooms of the palace, the glories of which are described with such minute care by the letter-writers of the time, moved in courtly intercourse the soldiers, the fine gentlemen, the ladies of cultured wit, the men of letters and the no less brilliant clerics, whose brisk dialogue fills page after page of Castiglione. Music was cultivated with diligence and taste; the duchess and her attendants both played and sang, and professional musicians were welcomed and honoured.

Mantua,† with which Urbino was closely united by ties of marriage and policy, shows in another aspect how the court became the nursery of Art. Isabella Gonzaga transformed the ducal palace into a museum of paintings. Her own *Studio* was frescoed by Mantegna and hung with the work of Perugino and Costa. Artists visited her, da

* Luzio and Renier: *Mantova e Urbino*. 1893.

† *Ibid.*

Vinci to paint her portrait ; she is found giving minutely detailed instructions to Perugino as to the painting of a large allegorical scene, the subject of which was to be the strife of Diana and Venus ; indeed, Isabella is one of the most interesting of the Renaissance *cognoscenti*.

Though smaller, the court at Ferrara* was famous in a different way. The princes of the house of Este had laboured to transform a wilderness into a blossoming garden. Set like a jewel among woody hollows, lay the Castellina, their suburban seat of *villegiatura*. Glades of cypress led to a marble casino of classic design ; interspersed with stretches of level lawn were roseries and groves of pine. The leisurely wanderer through the wooded alleys of the Regnaia came suddenly on marble fountains and pools, where peacocks added a flash of brilliant colour, while the soft murmur of doves filled all the air. In such surroundings were passed the idle hours of the butterfly beings whose pleasant causeries Romei records in his *Discorsi*. The fame of their beauty, of their courtly grace and exquisite culture ran throughout Italy, while Ferrara's reputation as a storehouse of learning was only surpassed by that of Florence. Boiardo, Ariosto and Tasso lived at the Court ; Ariosto's eulogy of the ladies who adorned it is a classic passage in the Renaissance chorus of woman-praise. Greek scholarship flourished here under Guarino, Bessarion and Giorgio Gemisto.

Such, in brief, were the more striking external attributes of the courts from which the Italian embassy-trains set out, and they found in England conditions favourable for the reception and assimilation of their ideas and practice. The sixteenth century had been a period of emergence from mediævalism, and though in many ways the Tudor rule had been heavy-handed, it had been accompanied by a conscious striving towards intellectual light. So these embassy-trains and diplomatic missions, copies in miniature of the Italian courts, containing men of

* Angelo Solerti : *Leonora d'Este* 1888 ; *Ferrara e la Corte Estense*, 1898.

scholarly culture and brilliant accomplishment, gave a further impulse to the work of such men as Linacre, Erasmus and Colet. They were types to be imitated by the new and changed aristocracy which gathered round Henry VIII and Elizabeth. The expiring feudal conceptions of the fifteenth century had given way to the despotic ideals of the Tudors, and out of the welter of the Roses had been evolved a system similar in many ways to that of an Italian Republic. A strong central Government, in which court influence and intrigue played no small part, had been established on the ruins of a system by which many feudal lords, semi-royal in power and equipage, had ruled courts as powerful as the king's. Under the newer régime, they became courtiers, not princes. And the process of reconstruction had been not unlike the rise to power of a typical Italian house, as the Medici or the Visconti, where a strong semi-adventurer had made his dynasty secure by sheer force of personality. England thus reproduced, with differences, what had been in force in Italy for a century and a half, while the growth of London and the increasing impetus given to learning by the Court, made the parallel still closer. Indeed, London in the later sixteenth century had many external likenesses to Medicean Florence. It had become the centre of an educational movement largely financed by the city guilds; in commerce it had displaced Antwerp as the entrepôt of N.-W. Europe, while its traditional delight in pageant and show had been constantly fed by Henry VIII and Elizabeth. But with the essentially civic pride of the Florentines, the Londoner combined an equally deep national sentiment, so that the city, under such merchant princes as Sir Thomas Gresham, was always in the front during periods of national crisis or progress.

Renaissance ideals, in reaction with this brilliant court life, produced a new conception of culture, a conception given literary form to by Baldassare Castiglione,* himself

* E. Bottari; *Notizie intorno al Conte Baldassare Castiglione*. 1890.

no mean type of the figure he labours to portray. Born at Casatico, in Mantuan territory, in 1478, he was sent early to the court of the Sforza at Milan, entering afterwards the service of Gianfrancesco Gonzaga at Mantua, by whom he was sent on an embassy to Milan and Rome. Here he met Guidobaldo, Duke of Urbino, in whose service he remained. He fought at Cesena, with the Papal forces against Venice, and spent the rest of his career as diplomatic envoy of Urbino. In this capacity, he visited England in 1506 to receive the insignia of the Garter for his master. His stay was brief, from 1st November to 9th February, and we have little or no account of his proceedings at Henry VII's Court. On his return he was made ambassador to Louis XII at Milan. The death of Guidobaldo in 1508 was no check to his diplomatic career, for the Duke's successor, Francesco Maria della Rovere, appointed him Governor of Gubbio, in which position he served against the Venetians with fifty men-at-arms. Business of an extremely delicate nature, the defence of Francesco in his trial for the murder of Cardinal Alidosi in 1511, drew him to Rome, where he appears again in 1513 accompanying the Duke at the coronation of Leo X. The same year he was made Count of Novillara and ambassador to the Sacred College. This post he kept for nearly the whole of Leo's pontificate. The variety, delicacy and importance of his diplomatic work is amply shown by the masses of his correspondence at this period ; it seems clear, too, that part of his time was spent with artists and men of letters ; on his visit to Mantua in 1524 he had in his train Giulio Pippi (Romano), a pupil of Raphael. The following year Clement VII sent him as papal ambassador to Charles V, but his negotiations were futile and he was unable to avert the sack of Rome in 1527. He died at Toledo in 1529.

Such was the career of the man who proposed to delineate the embodiment of new ideals of culture. In personality and pursuits he had many of the attributes of his pattern scholar-gentleman ; he was a scholar and friend of

scholars, a soldier and man of affairs, with many of the accomplishments of his ideal figure. His book "*Il Cortegiano*" (The Courtier) was conceived in 1508, but not published till 1528,—a delay due to the constant polishing exercised upon it. The occasion of the dialogues which compose it was the visit of Julius II to Urbino on his way to Rome in 1507, after the siege of Bologna. He was received with jousts and pageantry, and the mingling of his train with the Urbinate household produced these discourses on the attributes of the perfectly cultured character.

The ideal figure which Castiglione attempts to picture is that of the soldier, who, by means of the added graces of the scholar-gentleman, is fitted to be the companion of princes and the ornament of their courts. Noble in birth, pleasing in person and bearing, he must accompany all his speech and action with a charm and grace which lift him above the common crowd. His profession—or at least his dominant occupation—is to be that of arms; not, however, parading his prowess as one who has "taken his cuirass to wife." Knowledge of the causes of single combat, the etiquette to be observed in carrying it out, must be part of his martial upbringing. Horsemanship and the care of horses, fencing and the subservient exercises of running, leaping, wrestling and swimming are accomplishments to be mastered. But the supreme charm in all these actions will be his absence of constraint; he will be always at ease, not throwing every effort into the action in hand, as if he were a professional swordsman or jockey, but appearing able at any time to practise all other exercises with equal restraint. If he is riding, he does not appear nailed to the saddle; in dancing, his lips are not seen to move in a painful endeavour to count the steps. *Sprezzatura*, a gracious but unaffected disdain, a neglect, full of art, will seem to accompany his every act. The universal rule of conduct is this—"to avoid affectation at any cost, as a sharp and perilous rock, and in everything to use a

certain *Sprezzatura*, which conceals art, and shows that whatever is said or done, comes without effort, almost without thought."

So far the accomplishments have been merely physical; but a fine animal is by no means the ideal. A cultivated mind, a developed taste, are to go hand in hand, with physical perfection, for if arms is the basis of the gentleman's existence, letters will be its chief ornament. "What soul is so feeble and low," says Castiglione, through the mouth of Federigo Fregoso, "that, if it reads of the deeds and greatness of Cæsar and Alexander, of Scipio and Hannibal it will not be inflamed with an ardent desire to emulate them." For this reason, the ideal cultured man "must have more than a nodding acquaintance with letters, especially in those studies called the 'Humanities.'" Consistently with the practice of a country foremost at that day for its music, "a rest from fatigue, and medicine of sick minds," he will be a pleasing singer, and will play well upon all instruments. When advancing age weakens his voice and stiffens his fingers, he will yet remain a connoisseur of cultivated taste. Julianio de Medici, summing up the general opinion of the assembly, says: "Indeed I think that music is not only an ornament, but a necessary accomplishment in our ideal." With painters and sculptors he will be equally at home, handling pencil and brush with success, and appreciating all the niceties of execution in statue and picture. Indeed, the pattern courtier will be a real virtuoso, who, "when other duties or pleasures become toilsome, will contemplate the beauties of old and new statues, vases, buildings, medals, cameos, intaglios, etc., and thus perhaps come to realize the beauties, too, of the human frame."

Such are a few of the cultured man's accomplishments;—in what direction should they be exercised? Briefly, they are to fit him for the service of his prince—"to obtain worthy praise and the good opinion of all, but

pecially from the prince whom he serves." To succeed in this, he must "consider well what he says or does, in whose presence and in what manner he comports himself, and the reason of his actions ;" above all, he must avoid affectation. But, on the other hand, if the pattern cultured man is honoured by receiving the favour of his prince, the latter in his turn is no less honoured by the service rendered. Indeed, "if our courtier by chance finds himself in the service of a vicious or depraved prince, he must immediately, upon discovering it, leave his court, in order not to feel that shame which accompanies all good men who serve evil."

But perhaps the best known passage in the *Cortegiano* is that put in the mouth of Pietro Bembo, who deals with the courtier, the cultured man, in love, for it is one of the greatest popular expressions in sixteenth century Italy of Platonic conceptions of beauty. Bembo, in language largely reminiscent of Ficino's commentary on the *Symposium*, demands that his ideal man should, from the bodily beauty of the individual, learn to abstract ideal beauty "and to hold within his imagination the abstract forms of every material beauty." Here Bembo passes the bounds of Plato and comes into the region of the Neo-Platonists ; for the cultured lover, with mind purged from vice by the study of philosophy, at last opens his eyes—"which all possess but few use"—and sees within himself a ray of the light proceeding from true beauty, the beauty of the angels. Thus, "blind to things mundane, his inner eye is opened to things celestial."

Such, in brief outline, are the contents of this, the most famous of Courtesy books ; and it has been necessary to devote thus much space to them because their influence throughout Western Europe was enormous, not only in the number of translations and editions, but in the stimulus it gave to the newer ideals of culture. But as a work of art merely, the *Cortegiano* is an extraordinary production. It has perfect dramatic appropriateness in the assignment

of dialogue parts; sparkling by-play, quip, jest and repartee fill up the intervals between the more serious discussions and its quick narrative style has often much that recalls Boccaccio. But perhaps, its abiding interest for us is its reflection, idealized perhaps, but none the less faithful, of an age and society in many ways splendid; it is a lasting monument, both of the contemporary ideals of the cultured man and of the artistic splendours and occasionally spiritually refined life of the Urbinate court. It is "the result of the impact of new thought upon the old, the work of a humanist knight, friend of Bembo and Raphael, and no unworthy courtier of Isabella Gonzaga."* To conclude, we may quote Tasso's words—"while courts and princes endure, so long as ladies and knights come together in courtly intercourse, so long as valour and courtesy have any abiding place in the minds of men, so long will the name of Castiglione be held in praise."

The constant intercourse,—scholastic, diplomatic and mercantile, which existed between Italy and England was bound to bear fruit in character. Sir Thomas Wyatt, long before the zenith of Italian influence, was deeply Italianate; it was impossible that a man of his attainments should remain untouched, and his mind uncoloured, by the manifold glories of the courts which he visited as the ambassador of Henry VIII. He was remarkable for a well-proportioned body and comely face; his dexterity and address in arms were shown in many brilliant tournaments before the king, and to these accomplishments he added those of singing and lute-playing. He was a poet, a brilliant and witty talker, thus embodying many of the attributes demanded by Castiglione.

An even more striking parallel may be drawn between Queen Elizabeth and Isabella Gonzaga, two types of Renaissance culture in womanhood. Elizabeth, brought up in the newer ideas, was a horsewoman, a skilled musician, a graceful dancer and a good shot; she spoke

* V. Gian. *Il Cortesiano*. 1894.

Italian and French fluently, read Demosthenes in the original and could talk pedantry with any pedant. Ascham the humanist had been her tutor, while Isabella had had an even greater scholar, Battista Guarino, to read with her the Eclogues of Virgil and Cicero's Letters. Isabella at Ferrara, surrounded by the best of Italian and Flemish art, letters and music, is the Italian forerunner of Elizabeth at Henry's court. Both were skilled in affairs of State, though Isabella's task of governing Mantua while her husband Francesco was captain of the armies of the League was one of infinitely less delicacy and responsibility than that of Elizabeth during the first thirty years of her reign. Both took relaxation in jousts and pageantry and in the even more frivolous amusements of clowns and dwarfs, while Isabella's suite of apartments specially set aside for her cats and dogs is a curious anticipation of certain modern developments.

The doubtful methods of the Italian princess in diplomacy, her easy toleration of vice and falsehood are reflected in the tortuous mazes of Elizabeth's private negotiations, which were often the despair of Secretaries of State, and in her extraordinary appetite for fulsome flattery. Both shared the same radiant vitality and keen joy in life, though the serene temper of Isabella, her clear-eyed worship of beauty, her stainless purity are elements lacking in Elizabeth's nature, which, deriving much from her father, inherited much of the coarseness of the Tudors.

On the purely literary side, there is ample evidence of the vogue of *Il Cortegiano*, which Sir Thomas Hoby had translated as "the Booke of the Courtyer" in 1561. Robert Greene mentions and quotes it frequently; Florio says that "Castilions Courtier and Guazzo his Dialogues" were the books most commonly read by those who desired to learn a little Italian. Marston, in his satires of 1598, describes the character of the punctiliously polite courtier under the title of the "Absolute Castilio." It is not clear,

however, that Shakespeare knew the book. The advice of Polonius to Laertes is in some points very close to the teaching of Castiglione, especially in the matter of dress, while much of Shakespeare's praise of music seems to echo the great "sea of praise" to which many of the speakers in the *Cortegiano* contributed. Hints and direct allusions abound throughout the Elizabethan drama, and in one notable regard Castiglione's work may well have served as a model for nascent comedy in England. The dramatic form of colloquy in which the book is cast was the most popular of literary forms at the Renaissance. The civil retorts, delicate interruptions and fencing-matches of wit scattered throughout the *Cortegiano* had an even greater value as models for English comic dialogue. The "loud lies and vain boasts" of Ralph Roister Doister, Huff, Snuff and Ruff and Grim the Collier of Croydon gave way to the courtly wit of Benedick and Beatrice, of Orlando and Rosalind. The models of refined dialogue available for Lyly and Shakespeare were to be found in Italy,—not in the Italian drama, still under the heel of classic tradition, but in just such sparkling conversation as was to be found in the dialogue form of Italian prose. And of this the best could be tasted in the *Cortegiano* of Castiglione. Apart from questions of style, however, it is undoubted that the ideals of Italy had great weight, both in the actual life of an Elizabethan gentleman and in its reproduction in literature. One of the chief problems of the age was the education of a man for a society in which a career was open to the talents, and Elyot's *Governour* (1531) is one of the earliest attempts to treat it. Its author cannot be proved to have visited Italy before the publication of the book, yet his friendship with Roger Ascham, Colet, Lilly and Linacre makes it clear that Italian would probably be known to him. The *Governour* is a treatise owing much to Erasmus' *Institutio Principis Christiani*, but there are many signs that Elyot had read the *Cortegiano*, though this was published only three years

before. In the introduction he refers to Florence and Genoa as examples of the evils of a republic and to Ferrara and Venice as showing the excellence of a principedom, and then proceeds at once with the education of his prince "in swete manners and vertuous custome." To learn Latin, and to speak it with ease before seven years of age, to avoid all vice, and to be gently drawn to virtue, is the programme of the early years. Music he lays special stress upon, yet not as if it were an essential. "Playinge on instruments of musike, which, moderately used and without diminution of honour, that is to say, without wanton countenance and dissolute gesture, is not to be condemned." And in continuation, and very reminiscent of Castiglione's pronouncement on *Sprenzatura*, he says that he "should not have so much delectation therein that in playinge and singynge only he shulde put his holle study and felicitie." Painting and drawing are also desirable; "a capetaine may discrive the country of his adversary also perceyve the placis of advauntage, the form of bataylynge of his enemies." This indeed is Castiglione's idea of the use of painting and drawing; yet he is not to be "a commune painter or kerver whiche shal present himselfe openly stained or embued with sondry colours."

Bodily strength is to be attended to and Elyot outlines several of the exercises "adapting his bodye to hardness, strength and agilitie." Wrestling, running, swimming, and the handling of sundry weapons, especially the sword and battleaxe, "whiche be for a nobleman moste convenient;" hunting "an imitation of batayle" and hawking are the exercises he recommends.

But for a much completer picture of the cultured man, the description furnished by Spenser may be cited. It will be seen that in many points it derives from Castiglione; indeed the following passage from *Mother Hubbard's Tale* reads like a verse resume.

Fair exercise

Of knightly feates, he daylie doth devise :
 Now menaging the mouthes of stubborne steedes,
 Now practising the prooffe of warlike deedes,
 Now his bright armes assaying, now his speare,
 Now at the nigh aymed ring away to beare.
 At other times he casts to sew the chase
 Of swift wilde beastes, or runne on foote a race,
 T'enlarge his breath, (large breath in armes most needfull)
 Or els by wrestling to wex strong and heedfull,
 Or his stiff armes to stretch with Eughen bowe.

Thus when this Courtly gentleman with toyle
 Himselfe hath wearied, he doth recoyle
 Unto his reste, and there with sweete delight
 Of Musicks skill revives his toyled spright
 Or els with Loves, and Ladies gentle sports.

Or lastly, when the bodie list to pause
 His minde unto the Muses he withdraws.

With whom he close confers with wise discourse
 Of Nature's workes, of heaven's continuall course
 Of forreine lands, of people different,
 Of kingdomes change, of divers government,
 Of dreadfull battailes of renowned knights;
 With which desire and praise of noble fame
 The only upshot whereto he doth ayme.

For all his minde on honour fixed is
 To which he levels all his purposis
 And in his Prince's service spend his dayes
 Not so much for to gaine, or for to raise
 Himselfe to high degree as for his grace
 And in his liking to win worthy place
 Through due deserts and comely carriage
 In whatso please employ his personage.

Again, Calidore, the hero of the Sixth Book of the *Faerie Queene*, who in the personal allegory is Sir Philip Sidney, has most of the attributes of the Italian ideal; he is of noble birth, of "comely guize," "well approv'd in batteilous affray," and "with the greatest purchases greatest grace." Combined with his are the physical graces of Tristram, a subordinate type of "Courtesy," the

noble hunter and hawker, the man brought up in "seemely leeres."

It is difficult to state definitely Shakespeare's debt to the *literature* of this Italian ideal, but his middle comedy shows conclusively how the ideal itself fascinated him. The *mise-en-scene* of his comedy-work from the *Two Gentlemen of Verona* to *Much Ado About Nothing* is set in a typical Italian city state, ruled by a tyrant or semi-tyrant cast in similar mould to a prince of the house of Este, Sforza or Gonzaga. Even Theseus loses his classic personality, while the Athens of *A Midsummer Night's Dream* has more in common with sixteenth century Florence than with the Athens of the Periclean age. Similarly, the characters of these plays have many of the attributes in action of Castiglione's figure. Benedick and Bassanio together would make a tolerably close approximation to the Cortegiano, while the former has much the same sort of roving commission of wit as has Federigo Fregoso in the Italian work. Benedick's postulates for his ideal women smack much of the requisites outlined by Castiglione. "Rich,...wise,...virtuous,...fair,...mild...noble...of good discourse, an excellent musician." (*Much Ado About Nothing*, II. iii. 32.) "Noble, unaffected, affable, wise, modest, and with a certain quickness of wit," says Castiglione, who goes on to demand all the accomplishments, as music, painting and dancing, in his court-lady, which before he had demanded of the courtier. Another possible reminiscence on Shakespeare's part concerning the aim of the courtier's existence is found in the same play :

Urs.

Signior Benedick

For shape, for bearing argument and valour
Goes foremost in report through Italy.

Hero. Indeed, he hath an excellent good name.

Urs. *His excellence did earn it, ere he had it.* (III. i. 95)

This seems to reproduce Castiglione's idea that the end of the cultured courtier's existence "is to acquire grace and good estimation honourably from all, especially from his prince."

The scholarly part of the ideal is reflected in Lucentio who comes to Padua to pursue "A course of learning and ingenious studies" (*Taming of the Shrew*, I. i. 9) and is advised by his man Tranio to

Practise rhetoric in your common talk
Music and poesy use to quicken you. (ib. I. i. 5);

Othello has most of the more physical attributes of the perfect figure. He is born of "men of royal siege" (I. i. 22); from youth up his profession has been that of arms, his dearest action has been "in the tented field" (I. iii. 85) and by that action he has gained grace and estimation in eyes of the Loge and senators of Venice. But on the other hand he has not "those soft parts of conversation" upon which the Italian laid so much stress (III. iii. 264). Hamlet, however, approaches nearer to the Italian ideal. He is a fencer, a musician, well versed in letters, and no mean critic of poetry and dramatic art.

Olivia's description of the Duke Orsino (*Twelfth Night*, I. v. 277 seq.) gives in concise form Shakespeare's conception of the ideal.

Yet I suppose him virtuous, know him noble,
Of great estate, of fresh and stainless youth;
In voices well divulged, free, learn'd and valiant;
And in dimension and the shape of nature
A gracious person.

(Here "voices" means the "opinion of the world," as in *Julius Cæsar*, II. i. 146 "Buy men's voices to commend our deeds.") Even Sir Toby Belch, speaking of Sir Andrew Aguecheek in the same play (I. iii. 26), pays unconscious tribute to the Italian conception. He plays o' the viol-de-gamboys, and speaks three or four languages word for word without book, and hath all the gifts of nature." And Olivia herself, in sudden love with the disguised Viola, thus tries to excuse her liking, as she muses (I. v. 310)

"I am a gentleman;" I'll be sworn thou art;
Thy tongue, thy face, thy limbs, actions and spirit,
Do give thee five-fold blazon."

With these may be compared the description of Longaville in *Love's Labours Lost* (II. i. 44)

A man of sovereign parts he is esteemed,
Well fitted in arts, glorious in arms :
Nothing becomes him ill that he would well.

The reputation of Italy is hinted at in *Cymbeline*, (I. x. 100) where Posthumus says "Your Italy contains none so accomplished a courtier."

The subject of noble birth, upon which Castiglione discourses, and which he makes an essential element in his pattern, provides the theme of nearly all Shakespeare's romantic comedy from *The Winter's Tale* to *The Tempest*. Here a frequent use is made of the idea of noble birth concealed, but bursting out in sparks of high spirit. Castiglione says that his pattern courtier and gentleman should be "*di generosa famiglia*," since it is less likely that such a man would smirch by baseness the good name of his ancestors. He parries an objection with the Horatian reminiscence "it stands with reason that good should spring of good" (Hor. *Od. iv. 4. Fortes creantur fortibus et bonis*). Both Shakespeare and Spenser use the same idea, though possibly enough the immediate source in both is Latin. The former says (*Cymbeline*, IV. ii. 25) "Cowards sire cowards, and base things sire base ;" the latter (*Faerie Queene*, VI. iii. 1)

For seldome seene a trotting stalion get
An ambling Colt, that is his proper owne :
So seldome seene that one in baseness set
Doth noble courageshew with courteous manners met. (*mingled*)

The Spenser passage may possibly adapt the same ode of Horace :—

est in juvencis, est in equis patrum
virtus, neque imbellem feroces
progenerant aquilae columbam,

though the last two lines of it smack more of Castiglione. Shakespeare expresses the idea perhaps best in *Cymbeline* (IV. ii. 176), where Belarius, guardian of the two

kidnapped princes, shows how their nobility shines through their apparently mean estate:—

'Tis wonder
That an invisible instinct should frame them
To royalty unlearn'd, honour untaught,
Civility not seen from other, valour
That wildly grows in them, but yields a crop
As if it had been sow'd.

With this we may compare Polixenes' estimate of Perdita, the supposed shepherdess in the *Winter's Tale* (IV. iv. 156)

This is the prettiest low-born lass that ever
Ran on the greensward : nothing she does or seems
But smacks of something greater than herself
Too noble for this place.

In Elizabethan drama there is a much larger insistence upon the dangers of Italian intercourse ; a good deal is mere amplification of the theme “ Inglese Italianato diavolo incarnato.” Space will not permit of any discussion as to the origin and development of this idea, but a few examples may be given from post-Shakesperean drama of the persistence of the purer ideal of Castiglione. Thus Massinger's *Great Duke of Florence* describes in detail the upbringing of the young prince Giovanni. He is skilled in horsemanship, grave in discourse, a fine fencer, a musician and a scholar. To these accomplishments he adds dancing, swimming and wrestling. This close following of the Italian ideal is paralleled in the companion picture of Lidia, the Court Lady, pure in soul, matchless in body, of sweet discourse, charming in every action. Further details are added in the same author's *Bond-man*, where the hero, modest and courteous, sings and plays delightfully, and adds lavish bounty to his other attributes.

Fletcher's *Loyal Subject* develops the idea of the cultured scholar-gentleman using his powers in his prince's service. Archas, the loyal subject, is the embodiment of passive obedience, yet ready on occasion to show the prince his faults. In his own words, the prince

. . . . Carried me to Court, there bred me up,
 Bestow'd his favours on me, *taught me the Arms first*
 With those an honest mind ; I served him truly,
 And where he gave me trust, I think I fail'd not (II. v.)

This indeed expresses almost exactly Castiglione's idea of the relation of the gentleman to the prince he serves. The same play gives us a condensed description of the Court, that has much in common with contemporary accounts of Urbino or Ferrara.

. . . . This place is pleasure,
 Preserv'd to that use, so inhabited ;
 And those that live here, live delightful, joyful ;
 These are the gardens of Adonis, Ladies,
 Where all sweets to their free and noble uses
 Grow'ever young and courted (III. vi.)

with which may be compared Massinger's description of the court of Milan :

We there shall see all bravery and cost
 That Art can boast of (*Duke of Milan*, I. i.)

. It is a far cry from the courtly gallants and cultured gentlemen of Shakespeare's middle comedy to the Italian monsters of Webster, Tourneur and Ford. With the latter group the darker side of Italian life predominates, they see nothing of the fair interchange of courtesies, the joy in life of the Italian spirit. Unnatural lusts, psychological enormities preoccupy them, and their Italy is dark and sinister. But with them another, and a vastly less attractive chapter in the history of Italian influences in English life and literature opens, with which this present survey has little or nothing to do.

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A CRITICAL STUDY OF SANKARA.

BY S. S. SURYANARAYANAN.

PHILOSOPHY, says Plato, begins in wonder. How the world began and how it subsists, how its multifarious parts work harmoniously and how in spite of persistent human attempts to harmonize things, they fall out into disharmony are objects of wonder in every age. Nothing is more familiar to the human mind than the conception of man as an agent, a creator. And so the whole world with all its good and evil, its whimsicalities and orderliness, was supposed to be the work of one superhuman creator.

This conception of creation, however, failed to give satisfaction with the development of philosophic thought. The religious conception of God is that of an omniscient, omnipotent, infinite Creator. But our world is finite ; how then can it proceed from the infinite ? Surely, the effect cannot be unlike the cause.

Cause and effect, again, must be distinct. But if God is infinite, how can there be anything distinct from Him ?

It may further be questioned whether it is possible to ascribe action to the infinite, for *action* implies an end to be realized, an object still to be achieved. Action would seem to be the peculiar property of finitude, and hence the infinite cannot act.

The only logical way out of the difficulty would seem to be the identification of God and Man, the Absolute and the Individual. God cannot be wholly distinct from Man, for such a conception betrays a lack of sympathy in the Divine and does not appeal to us. It appears to be better procedure to make out that God and Man are but two aspects of an identical content. "All that exists is one, though sages call it variously."

The theory thus arrived at has been variously styled Monism, or Mysticism, or Absolute Idealism. The type of thought cannot be said to be peculiar either to the ancient or to the modern world. The writings of Plato contain germs which were developed later by Plotinus. Spinozistic pantheism appeared with the dawn of modern philosophy. Absolutism (and, to a certain extent, "modern" philosophy) reached a culminating point in the Hegelianism of the nineteenth century. And in our own land, we had Sankara, as confirmed an Absolutist as any of these. It is here proposed to take a general view of Vedantic (Sankara's) Absolutism and briefly discuss some of its basic principles.

"In the whole world," says Schopenhauer, "there is no study so beneficial and so elevating as that of the Upanishads. It has been the solace of my life, it will be the solace of my death." This Schopenhauerian appreciation sounds rather ominous. Let us examine how far it is justified.

The starting point of Sankara is the same as that of most other Absolutists, *viz.*, the evils of finitude. The trend of thought is the same—the quest after the infinite wherein shall be transcended all these evils. The infinite of Sankara goes by the name of Brahman.

The moot point in the Absolutist controversy would seem to be the demonstration of the existence of the Absolute. And it is here that all such systems fail. Hegel dogmatizes. He asserts the existence of his Absolute. Spinoza argues in a circle to prove the existence of substance. These defects will be apparent even to superficial readers of Hegel and Spinoza. Sankara does not undertake to *prove* the existence of Brahman. He merely urges some presumption in favour of its existence. The very belief in a conditioned Atman necessitates the belief in an unconditioned Brahman. That which can never exist unconditioned can never exist conditioned. The unreal has no significance apart from the real. If it

be asked how the existence of the conditioned Atman is known, Sankara answers like Descartes, *cogito ergo sum*.

The conclusiveness of the argument may be doubted. If the limitations of finitude, referred to by Sankara, are physical limitations, the Atman may transcend such limitations, and yet not be Brahman; for the limitations, though transcended, would yet be real. I may free myself from the limitations of this room and fly in mid-air. But yet, the room is real. If, however, Sankara means that each ego conditions another ego, the self cannot become unconditioned except when all these merge into one. But still the physical limitations would exist. They would all coalesce to form the universal non-ego. If Sankara means by his Absolute, an Ultimate, something to be attained in course of time, his argument might hold good. But he, like Hegel (and all other Absolutists), ignores the reality of Time.

The next presumption urged is the possibility, according to Sankara, of experiencing union with Brahman. This is an appeal to facts which cannot be easily verified by a critical investigator of the present day. And even granting this, there is the dualism of subject and object to be got over. The very possibility of such experience implies the distinct reality of Brahman and Atman.

Granting the existence of Brahman, let us proceed to consider how Sankara evolves the finite out of the infinite. The scriptures assign the function of creation to Brahman. But this statement is not absolutely true. It is a concession to the avidvan or the man in the street who does not know better. Brahman is the sole reality and the world is an illusion. When pressed as to the cause of the illusion, Sankara replies that Brahma, as functioning through Maya, originates the world-fiction. The origin of Maya itself cannot be questioned. There are certain (six) things which are anadhe or beginningless. Such are Brahman, Maya, the Jivatman, etc. This, however, would be rank pluralism, unless some definite attempt is made to show that all these are at bottom one

with Brahman. The Vedantin only asserts that they are one, and when asked for proof, replies that proof is irrelevant. This has been considered a point of special merit. Some have gone to the length of dubbing the Vedantic method as essentially pragmatic. Unfortunately, however, the pragmatic method cannot sanction the setting aside of questions wholesale as irrelevant. It says only this much. Any hypothesis may be suggested towards the solution of a particular problem and such a hypothesis will be valid provided it works well. If a theory does not contradict our present or our future knowledge, that theory may, so far, be considered true. It need not further be maintained that such a hypothesis, in order to be true, must be based on *a priori* considerations. This is evidently what Schiller means when he writes :* “ We need principles that work, not principles that possess testimonials from the highest *a priori* quarters.” The question, how reality is made would be declared irrelevant by the pragmatist. But the question here is, not how reality is made, but how a sole reality cannot at the same time be identical with six beginningless entities. Indeed, no question can be irrelevant for Metaphysics, since it covers the whole field of knowledge. It is the science of sciences. Nothing can be outside its pale.

Before discussing the question further, it would be instructive to note Sankara's distinction of standpoints. The moral difficulty in pantheism is that by abolishing the distinction between God and Man, the ideal and the actual, it deprives morality of its foundation. The doctrine is amoral, if not immoral. Sankara tries to get out of the difficulty by introducing a distinction. He distinguishes between the vidvan and the avidvan, one who has realized Brahman and one who has not. Things which are real to the latter are not real to the former and *vice versa*. Brahman is not the supreme reality to the avidvan, nor are the things of the finite world real to the vidvan. But

* *Studies in Humanism*, p. 482.

there is no hard and fast line between the two. It is the avidvan of to-day who regards the material world with its bindings and obligations as real, that grows into the wise one of to-morrow, possessed of the knowledge that Brahman is the one and only reality. In the earlier stages of a man's life, he is tempted to endow his surroundings with independent reality; and for him, they and his relations towards them cannot but be real. But with experience, he grows wiser, knows that this world is fleeting and seeks for higher reality in Brahman. The laws of morality are obligatory only in the earlier stages; once man has realized Brahman, they cease to have any binding on him. If Brahman and the individual 'self' were, originally at least, two independent beings, the doctrine here explained might be conceivable. But where Brahman himself is the individual soul, is it not a contradiction to assert that what is real at one time is unreal at another? If it be replied that the world is real only to Brahman as conditioned by upadhis, we may ask how initially the infinite Brahman contrived to get himself limited. What is worse, the upadhis are real and yet unreal to the same subject Brahman, though at different stages. But how an infinite entity can pass through stages is a mystery. Were Brahman merely the ideal which the individual soul strives to attain, much of the difficulty would be obviated. For the finite souls can pass through stages which an infinite God cannot. The distinction of standpoints may be valuable on any other hypothesis but that of the Vedantin. Here, certainly, it leads to a contradiction.

We may now consider the following passages concerning creation :

“32. Brahman is not the creator of the world, on account of beings engaging in any action, having a motive.

“33. But Brahman's creative activity is mere sport, such as we see in ordinary life.”

“Scripture,” writes Sankara in commenting upon this sutra, “affirms the fact of creation on the one hand and

the Lord's omniscience on the other hand."* Therefore, he argues, God can neither be inactive nor act senselessly, for both contradict scriptural truth. But still this doctrine of creation is not final. "We must remember that the scriptural doctrine of creation does not refer to the highest reality, it refers to the apparent world only which is characterized by name and form, the figments of Nescience, and it moreover aims at intimating that Brahman is the self of everything."

But, it may be asked, can maliciousness be attributed to the Lord even as a matter of dogma, inasmuch as the existence of evil suggests malice? Certainly not.

"34. Inequality of dispensation and cruelty, the Lord cannot be reproached with, on account of his regarding merit and demerit, for so scripture declares.

"35. If it be objected that it (*viz.*, the Lord having regard to merit and demerit) is impossible on account of the non-distinction of merit and demerit previous to the first creation, we refute the objection on the ground of the world being without a beginning.

"36. The beginninglessness of the world recommends itself to reason and is seen from scripture ;

"37. And because all the qualities required for the world are present in Brahman."*

One can hardly fail to notice that the six verses taken together contain a violent contradiction. The first three treat the world as having been created by Brahman. The last three, however, asseverate the beginninglessness of the world. The last sutra seems to point to Brahman as the immanent cause of the world. Brahman determines himself. Nothing external is needed. There is no motive for this self-determination since it is sportive. The Lord, however, is not malicious, being bound by regards. So far, the argument is all right and proceeds on the basis that the world has a beginning. The same assumption must be kept up when the further question is raised,

* Vedānta Sūtras with Sāṅkara's commentary, Thibaut's translation.

“whence did merit and demerit originate?” It will not do to say that they are beginningless, since the world is beginningless; for this makes all the preceding passages absurd. Here comes the jugglery with the two stand-points. To the avidvan, the world is real; it has a beginning in time and many questions connected with this beginning have to be answered. To the vidvan there is only one beginningless entity—Brahman, the world is an illusion and the illusion has to be accounted for. The avidvan’s questions have to be answered on the assumption that the world has a beginning in time; the vidvan’s illusion must be explained, with the knowledge that all temporal processes and the world itself are illusory. Sankara jumbles the two standpoints. To the avidvan’s question, it is replied that the world has no beginning in time, whereas the question itself and part of the answers thereto have been framed on that assumption. Sankara has to answer two questions, which he frequently confuses: (a) How can God create the exoteric world without seriously limiting His omnipotence and benevolence? (b) what is the cause of the illusory world of the esoteric standpoint? To both, there is but one answer—Maya.

This conception labours under many serious difficulties. The Vedantin conceives of it as a power or mode of activity of Brahman. Brahman as functioning through Maya, is the cause of this phenomenal world. “Brahman or self *per se* is changeless, but in union with Maya, becomes fictitiously the basis of this baseless world and underlies the world-fiction out of which the ever-changing figment-worlds proceed, in æon after æon.”* The finite world, again, is compared to reflections of Brahman. Thus, Sankarananda in his commentary on the Amritabhindu Upanishad says: “The Atman is one only in all beings. . . Nor is there any division of parts in the Atman. The one Atman appears different in different

* Crough: *The Philosophy of the Upanishads*, p. 47.

beings, putting on the forms of the bodies and the antahkaranas in which he manifests himself . . . He appears as many in the many upadhis . . . To illustrate : In a vast expanse of water, only one image of the moon is reflected, and when water is contained in many vessels, the images reflected are many." Similarly, in the words of Sankara, "The image of the sun on a piece of water expands with the expansion and contracts with the contraction of the ripples on the surface ; moves with the motion and is severed with the breaking of the ripples. . . . It is in a similar manner that the real self is reflected upon its counterfeits, the bodies of sentient creatures, and thus fictitiously limited, shares their growth and diminution and other sensible modes of being." * The question naturally arises, whether Maya, as thus conceived, does not limit Brahman. To which, the Vedantin replies, "Maya pre-exists with Brahman, but Brahman is not thereby, any the less, the one and only being, in like manner as the possibility of the future tree pre-exists in the seed of the tree, without the seed becoming any the less, a one and only seed." † The analogy is not very clear. Brahman is the seed and Maya the possibility of the tree. But the tree is, in a sense, identical with the seed. Is the world, in the same sense, identical with Brahman ? Secondly, the analogy involves temporal difficulties. The tree is not a limitation of the seed, because it is the latter, which, in course of time, develops into the tree. But Brahman is beyond time. Thirdly, the illustrations of the Vedantin are extremely misleading. The reflections of Brahman may be fictitious as compared with himself, but not so the mirrors. Brahman, as reflected in Maya, may be unreal, but Maya itself is not unreal, and hence constitutes a valid limitation of Brahman.

Sankara's account of creation is wholly unsatisfactory. He suggests only one hypothesis to explain

* Gough : *The Philosophy of the Upanishads*, p. 49.
 † Gough : *The Philosophy of the Upanishads*, p. 47.

all things—Maya. And this, we have seen, is unworkable. The hypothesis is a failure and pragmatically untrue. Sankara's system, instead of being pragmatic as is held by some modern scholars, is anti-pragmatic to the core, built, as it is, on unworkable hypotheses. The *forte* of Absolutism is the subject of absorption. The process is one of gradual elimination of individual peculiarities. The whole is a fanciful construction (and needless to say, Absolutism is at its best in fanciful constructions). The Jivatman conceives of himself as distinct from Brahman and of Brahman, not as the sole reality but as a finite, personal creator. The reason for this misapprehension is that the Jiva knows himself not directly, but through the antahkarana, which serves as a distorting mirror. Brahman can be apprehended only as personal creator or Iswara since he is seen through Maya. This normal stage of wakeful perception is known as Jagratha. The starting-point, here, is the problem of illusion. When a rope is perceived as a snake, it is the rope that is real, not the snake. Similarly, when Brahman is apprehended as Iswara, it is Brahman that is real. But how are we to know that Brahman and Iswara are distinct and that the one is not the other? Cases of normal correct perception are as abundant as cases of illusion. Why assume that the apprehension of God as a personal creator is incorrect? This side of the argument does not appeal to the Vedantin. To reverse the Baconian maxim, the Vedantin marks when he misses, but never marks when he hits.

The second stage of the process of involution is known as that of Svapna or dreaming. The individual knows that he is not distinct from the Absolute, and that the Absolute is not a finite creator. But he is still haunted by horrible nightmares, his intellect is still clouded and confused.

The third stage is that of sushupti or sleep. The soul is no longer troubled, for it rests in God. But the

individual has still to recognize, in some sense, the existence of Maya, just as a man personally not afraid of robbers, has still to recognize their existence and act on such recognition.

The final stage is that of realization or absorption. It is here that man knows Brahman fully, since he becomes Brahman. To the man who has realized Brahman, there are no bonds and no restrictions. Nothing affects him and hence, to him, nothing is real.

The whole process has been detailed here, only to illustrate Absolutist flights of fancy. It would be vain to seriously criticize it, since the subject does not come within the bounds of criticism.

One other important point remains to be noted: Sankara's solution of the problem of evil. He is bound by his principles to declare evil illusory. But this would deprive morality of its basis. He, therefore, as we have seen, introduces a distinction of standpoints. Evil is empirically real, but transcendently ideal. It must not be supposed that the distinction is peculiar to Sankara. Evil is real, said Spinoza, *sub specie temporis*. But viewed *sub specie aeternitatis*, it is evanescent. Perceptual knowledge, said Kant, is empirically real, but transcendently ideal.* But why should evil come to possess even empirical reality? The answer is contained in the theory of *Karma*. The Vedantin recognizes the initial distinctness of the Atman though, he says, it is ultimately identical with Brahman. This individual self must act and it is always given two possibilities of action—good and evil. If it chooses the evil, the evil acts bear fruit. They not merely bring about their immediate retribution, but also have a cumulative effect upon the self. The self is modified by each of its actions. The good act leaves behind it a good trace and the evil act an evil

* Interested readers will find a discussion on "Kant and the Vedanta" between the writer and a learned apologist of Sankara in the columns of the *Hindu* for August and September (1912). It is regretted that it is too lengthy to be included or adverted to here.

trace. The traces of one kind tend to counterbalance the traces of the other kind,* until at last the individual is left with a balance of good or bad dispositions according to the preponderance of good or bad acts in his life. And these psychical dispositions bear fruit. The soul, when it leaves this body, cannot choose any other body at random, but only that which is suited to its particular disposition. A man's acts in a previous life determine what he is in this life and the blessings or sufferings that he experiences are the fruit of his past actions. They are the result of Karma. When a man has thus undergone many re-births and exhausted his store of psychical dispositions, he becomes fit to realize Brahman.

The most obvious criticism of the theory would be that, instead of explaining, it only postpones the difficulty. The existence of suffering and evil in this world has to be explained. God is infinite and, consequently, above all distinctions of good and evil. How, then, did evil come into existence? Evil, says the Vedantin, was in the beginning. Man chose evil through avidya and, therefore, he fell. The first difficulty is that if evil existed from the beginning, God could not be infinite. To fall back upon the double standpoint will not avail, for, as we have seen, that doctrine leads to a contradiction.

Again, why should there be avidya? Why should God tempt man needlessly with alternative courses of action? It would seem to be one long process of purposeless self-tormentation. It might, of course, be replied that all this is unreal from the absolute standpoint. But the reply can be attempted only at the risk of contradiction.

It may also be noted that the choice of good, no less than that of evil, must be prompted by avidya, for Brahman is neither good nor evil. Hence it may be asked why a man that chooses the good is blessed and one that chooses evil, accursed.

*This is one interpretation. It is not here contended that it is the most correct or orthodox. Nor can we discuss other interpretations within this limited space.

A continued performance of good, no less than of evil, must lead to a continuous round of re-births. For all actions, good or bad, leave their traces behind them. The self acquires certain psychical dispositions and these dispositions necessitate re-birth to work themselves out. Vedantism has been characterized as Immanentism or Pantheism. But an Absolute, thus conceived, in no way resembles an immanent God. Man is identical with God, it is urged, but he is at the same time separated from God by infinite removes and infinite rounds of re-birth. A more transcendent deity it is impossible to conceive. The identity is only asserted, whereas the difference is painfully real.

The performance of good actions, no less than of bad, necessitates re-birth. Hence it is that a man is required to do his duty, without desiring the material ends to be attained. Conation, in other words, must not be feeling-prompted. The purpose of the injunction is to render the action meaningless and thus ineffective. It is only when we do something which has a meaning for us and interests us that the act tends to leave behind it a disposition. But if the act ceases to interest and thus loses its meaning, it cannot leave any trace behind. This end can be achieved by guarding against the influence of individual pleasures and pains in all volition. This is a point which will hardly pass without being questioned by a modern psychologist. Conation, according to him, is essentially feeling-prompted. But this point may be conceded to the Vedantin, for he makes a show of appealing to fact. Conation must still, however, be purpose-prompted. An action can truly be rendered meaningless, only if it has no definite purpose. Such purposeless conation is no conation at all. It is not possible to render rational action meaningless. Where it becomes meaningless, it becomes the action of an insane person, irrational in the strictest sense of the word. It is not possible to advocate a life of action and at the same time escape re-birth on the

Vedantic hypothesis. And if re-birth is not escaped, there is no way of attaining Brahman. If the Karmic theory be true, the Vedantic ideal can never be attained. Thus, Sankara's theory of Karma defeats its own purpose.

Another question is frequently raised in this connection—whether the theory of Karma is compatible with free-will. What a man is and does in this life, being determined by his acts in a previous life, and these, again, by his acts in a stage further still, it is contended that Karma can make no room for free-will. For, once a man sins, it is impossible for him to redeem it. The Vedantin, however, does not grant this. 'A man's present, no doubt, is determined by his past, but it is possible for him to perform good actions in the present life and thus redeem himself. Man inherits only tendencies and his freedom consists in rising above such tendencies. To take a concrete example, let us suppose that a man is fond of killing men and animals in this life. He will be born a butcher in the next. All the miseries and sufferings of a butcher's life will fall to his share. By undergoing them, his sin is expiated. And if, further, he performs good acts in that life, he will rise to a higher stage in the life succeeding. Assuming for practical purposes, that the next stage is that of a Brahmin, the butcher will attain that stage, provided he rises above his butcherly tendencies and performs Brahminic acts. Psychological knowledge on the subject of disposition is still vague and indefinite. It is impossible, therefore, to criticize the theory scientifically. Indeed, the greatest merit of the Karma theory (in the eyes of its advocates) is its indemonstrability, for what cannot be proved can neither be disproved. But it may be questioned whether the body has not some influence on the soul. Such influence is tacitly recognized in the doctrine of transmigration. The soul of a man on his death has to seek out a body adapted to its dispositions. It cannot enter any body it pleases. Does this not mean that the body influences the soul as much as the soul influences the body?

In other words, the existence of physiological dispositions is also tacitly recognized; and in every life, the psychical dispositions are attuned to the physical.

The admission, however, is fatal to the interests of Vedantism. The butcher of our illustration can, at least, perform only butcherly acts. He cannot rise above his tendencies. The butcher's body depresses the soul. He is involved in an endless round of re-birth as a butcher. So also of every other grade of life. So much so that it is impossible to conceive how there could have been a fall at all. The Brahmin and the butcher cannot but be Brahmin and butcher throughout the round. How could a Brahmin perform butcherly acts? It appears to be a physical impossibility, consistently with the principles of transmigration! The Karmic theory cannot provide for free-will. It is opposed to the Vedantin himself—the realization of Brahman; for, the individual once caught up by the wheel of Karma is condemned to an eternal round and can neither rise higher nor fall lower.

We may here notice some general criticisms urged by Professor Royce against Vedantism. It would be interesting to note their application to his own absolutism, but that does not concern us here. "When the mystic," he writes, "defining his God wholly in negative terms, lays stress upon the contrast as simply absolute, he finds so far that his Absolute is defined as nothing but the absence of finitude, and so, as apparently equivalent to nothing at all, since all definite contents are for us so far finite and since the absence of finitude is for us the absence of contents."* Brahman, he complains, is mere negation. It is not this, and not that, but nothing positive. The reply is attempted that Brahman, being the end of the world-process, is the type of perfection, not mere nothingness. The futility of the argument is plain. Brahman is only a concept, and, according to Professor Royce, it cannot successfully symbolize the end of the world-process, the concept being

* See in this whole connection, *The World and the Individual*, First Series, pp. 177-181.

purely negative. To this it is no reply to urge that Brahman is the end and that, therefore, the concept is positive. To argue thus would be to beg the question.

A second criticism is that "a zero that is contrasted with nothing, has so far not even any contrasting character and remains a genuine and absolute nothing." The argument may be refuted, say some, by an appeal to the empirical reality of the finite. But the doctrine of two standpoints cannot be admitted, since it leads to contradiction.

One more objection may be noted—that in mysticism, finite thinking condemns itself. "With ideas, the mystic wars against all ideas. With the abstract weapons of realism, he refuses realism." This self-contradiction is the besetting fallacy of every absolutist system.

It is a common vice in philosophy to value systems by measuring their distance from and fixing their relation to the system then in fashion. There has been a tendency of late to compare thus Sankara's system with that of Bergson. It cannot be denied that there are many points of resemblance between the two systems, though the ostensible aims of the two are as far apart as the poles.

Bergson, certainly, has no absolutist proclivities. He strives to establish the reality of concrete duration, the abolition of which reality is the essence of Absolutism. Though thus differing in results, the two agree to a large extent in method. The intellect is despised by both as purely practical in its aims and methods; and a novel mode of cognition (intuition) is set up as giving the only knowledge of the real. Both create a gulf between theory and practice, which, later, they are unable to bridge. In both, the same unsatisfactory juggling of standpoints is present. To exoteric questions we have seen Sankara returning esoteric answers. Similarly, to the question, why the intellect does not work satisfactorily, why in its legitimate field it is constantly beset by antinomies, Bergson replies, Don't think. The explanations offered by

Bergson and Sankara would be tenable, were there any continuity between the faculties posited by them. But what continuity can there be between knowledge and ignorance, or perception and illusion or far-seeing intellect and blind intuition?

The points of resemblance do not by any means reflect to Bergson's credit. The divorce between theory and practice has been a stumblingblock to the development of philosophy. That it has been got over in the past is no excuse for re-introducing it. The development of philosophy has been mainly dialectic. But this process involves much waste of energy. There is no valid reason for being content with half-truths, when with more judicious procedure, we might approximate to the full truth. There are difficulties brought to be got over without gratuitously creating new ones. To achieve maximum results with minimum expenditure is a sacred duty of man; and viewed in this light, Bergsonism must be condemned as a retrograde step.

In our own country, this dualism worked up by Sankara has had most disastrous effects. Vedantism has, undoubtedly, emphasized the importance of work. But why work, when by initiation under a guru, one can become so easily identical with Brahman? Admirers of Sankara would be inclined to follow his example rather than his precept. No attempt is made to show that work and contemplation are equally indispensable. Either the one or the other is Sankara's doctrine. For those to whom renunciation and contemplation are difficult, salvation by works is prescribed. But who are unfit for contemplation? By what standard are we to determine them? There is no answer.

The lethargy of Indians, as a nation, has often been imputed, and not unjustly, to the influence of "Vedantic pantheism." * The doctrine that all our hopes and ideals,

* The compound is objected to by Professor Desai of Indore in an article on "Brahma" in the April number of the Hibbert Journal for 1912. But he does not appear to have made out any case.

our strivings and rejoicings, are, in the end, vain and unreal, has taken pernicious hold of the Indian mind, breeding up a spirit of false resignation. The end of life, it is said, is happiness; and what is happiness but perfect equilibration? Such equilibrium has often been prescribed as life's goal by the evolutionists in the West. But, there, it has been objected to, on the ground, that it makes no room for progress and annihilates all distinction between highest and lowest. The amoeba is as well adapted to its conditions and as perfectly equilibrated as the perfectest man.* But, where all perfection and all progress are held to be surface-bubbles on a stream of nothingness how can the objection hold?

Nowhere else, perhaps, as in India, is the futility of a divorce between philosophy and life so clearly demonstrated. The doctrine of illusion, however subtly worked out, is demoralizing. Its holders forget that "calm is not life's goal, though calm is well." What we want to-day is a philosophy of Activism, of the type propagated by Professor Eucken in Germany. To him, that hath and not merely hath, but useth also, to him alone shall be given. Until this doctrine takes deep root in our minds and guides our lives, we can look for no salvation, material or spiritual.

S. S. SURYANARAYANAN.

Madras

* Sorley : *Ethics of Naturalism*, Part II.

REVIEWS OF BOOKS.

**ARTHUR JAMES BALFOUR : PASSAGES IN HIS
NON-POLITICAL SPEECHES, ADDRESSES,
AND WRITINGS.**—Abridged and briefly annotated
by J. G. Jennings, I.E.S. (Longmans, Green & Co.)

This is a delightful little book of extracts on a score of different subjects from the speeches and writings of Mr. Balfour, the philosopher, the politician, the golfer. One might divide them into three classes :—the first being those on some of the great men in history and literature, the second those on educational topics, the third those on matters of general interest. For the first class there is, we think, no crying need : there are scores of excellent essays by more prominent critics than Mr. Balfour which are already accessible to the Indian student. The second is a subject about which much requires to be learned in India and about which Mr. Balfour has a better right to speak than most men. He has held high offices in many English and Scottish Universities and has never forgotten that the end of education is to make men and citizens. He holds strong views on the subject and has expressed them well and convincingly. On the third class of subjects he has also said things that are well worth thinking about. And the lighter element is not wanting.

Mr. Balfour is a master of style, especially of the epigrammatic. His dicta on the subject of examinations are particularly happy. He speaks of the "struggle to learn something not because the learner desires to know it but because he desires someone else to know that he knows it." "The man who has to teach the class for competitive examinations is no longer able to teach a subject as the subject presents itself to him, but has to teach it as he thinks the subject will present itself to the examiner."

"Every student ought to read a book, not to answer the questions of somebody else, but to answer his own questions."

"The man whose whole University life is directed towards reading for an examination is, in theological language, under the law and not under grace."

The extracts are on the whole very well chosen. It seems unfortunate however that the aposiopesis repetitions and awkward turns of various kinds which extempore speaking sometimes necessitates should be reproduced here. Passages on pages 54 and 59, too long to be quoted here, are examples.

The notes possess what are in our opinion the two greatest merits in notes ; they are few, and they are brief. But is "part and parcel off" more intelligible to the Indian student than "organic elements in"? And is "general proposition" a good definition of "common-place"? Is it advisable, and is it possible to annotate a phrase like "domestic charm"? And if it is both, is "the interest arising from a man's sense of possession" an accurate interpretation? Does not the phrase (applied to the world as it is here) rather suggest the feeling of what Mr. G. K. Chesterton has somewhere called a "cosy little Universe"?

It is stated in the introduction that the aim of the book is to present "English that is written and spoken now, and which a foreign student might adopt without fear of speaking a quaintly antiquated tongue." That aim has been achieved.

W. D.

TRANS-HIMALAYA, VOL. III.—By Sven Hedin.
(Messrs. Macmillan & Co., Ltd. 1913.)

In this volume, which is one of the latest additions to Macmillan's Empire Library, the intrepid discoverer continues the account of his journey to the source of the Indus and the Holy Lake of Manasarowar. Part of the book is devoted to a sketch of the history of Trans-Himalayan exploration, with illustrative quotations from the resulting literature which the author must have carefully studied. The later chapters narrate the journey back to Simla with the immense physical and political difficulties encountered on the way.

The author is a minute observer of men and things and describes his experiences with much detail. We fear the book will not become popular, if this was intended, as the detail is often of a kind attractive only to the enthusiastic geographer. The chapter on the Selipuk monastery is one of the most readable, while the pages which compare Lamaism and Catholicism show careful study and are of general interest.

Four well-chosen photographs are reproduced and give one a good impression of the bleak Highlands of Trans-Himalaya.

A. C.

INTRODUCTION TO THE SCIENCE OF EDUCATION.—By Benoy Kumar Sarkar.

This book is a translation of an introduction to a projected work in Bengali dealing with the Science of Education. The Translator's Preface makes it clear that Professor Sarkar has already shown considerable industry in the production of books on education. But we confess to a doubt as to whether any work, written by a single writer, can cover all the ground indicated in this Introduction as being the scope of the intended work.

Not much more likely is it, we think, that any one pupil will be able to benefit by the whole of the scheme of education therein foreshadowed, as apparently any one subject would claim his complete attention as long as he was studying it.

There are some contradictions in the suggestions made, as regards methods of education, and although there is a certain claim put forward to originality of thought it seems to us that a study of the educational writers of the past would reveal the fact that they had made the same suggestions, only possibly in a clearer and more convincing manner. However, it is manifestly unfair to criticize what is here only hinted at, and we shall await with interest the appearance of the book itself, and the full exposition of the views of the writer.

There are some irregularities in the English which it would be well to have removed in any future edition.

W. P.

A CHANGED MAN AND OTHER TALES.—By Thomas Hardy. (Macmillan's Empire Library.)

This is a collection of short stories which were published in various magazines and periodicals, and readers will be glad to have them in a more accessible form. Most of them are concerned with country life in the Wessex country which the novelist knows so well and loves so well. They are very similar in tone to his larger work. We are never allowed to be unduly optimistic in regard to life.

Actualities do not admit of plots with happy or even conventionally artistic endings. When our feelings are strung up to the highest pitch and we expect a magnificent triumph or at least a startling tragedy, some little prosaic episode is introduced which averts the triumph or the tragedy and we discover that the characters of the story are only at the beginning of years of grey and monotonous endurance. We wonder if life is really so full of anti-climax. These stories, like the longer novels, are in harmony with the more sombre moods of nature, but the sheer beauty of description and of phrase is a constant source of joy. Most of the tales deal with modern—or comparatively modern times—but one or two treat of the doings of Tudor and Stuart days and are based upon stories which have not found their way into recognized history but still linger about the countryside in that half-real, half-imaginary land of Wessex.

We have received several volumes of Bohn's Popular Library published by G. Bell and Sons and issued at the price of one shilling a volume. These reprints, in clear type and handsomely bound, are a great improvement upon the somewhat unattractive appearance of the earlier volumes of this famous library.

PERIODICALS.

THE EDUCATIONAL REVIEW.—September, October, November 1913 (Madras : Srinivasa Varadachari & Co.)

These three issues, though somewhat unequal, are all worthy of attention. The September number is the best of the three, containing amongst other interesting things a brilliant paper on "The Place of Phonetics in the Teaching of English in Indian Schools," by Mr. R. W. Ross, of the Teachers' College, Madras. An account of Professor J. C. Bose's Researches is reprinted in a supplement and is very inspiring. Sir Edwin Durning-Lawrence in a short article attempts to establish once for all the Baconian authorship by an examination of Milton's Epitaph on Shakespeare. Perhaps the *Review* printed the article as a joke. At any rate it makes quite amusing reading for students of Shakespeare. An occasional misprint is excusable, but it is very disappointing to see one in the bold big letters of a title. "Intercation of French and English Literature" should surely be "Interaction

of French and English Literature." Moreover Skeleton is not a variant of Skelton, however strange the 15th century metrist may have been.

Calcutta readers will be interested in Mr. Seshadri's review of the scheme relating to a Technological Institute for Calcutta, in the October number. The short article on the use of Source-Books in the Teaching of History is suggestive.

A frontispiece of Their Excellencies Lord and Lady Hardinge is a feature of the November number. Sir Oliver Lodge's Presidential Address at the British Association is reprinted and a short article on English spelling deserves attention.

In all three numbers the reviews of books are numerous and intelligent, while the editorials are always carefully chosen and well-written.

THE QUARTERLY REVIEW.—October 1913.— (London : John Murray.)

It is difficult to select articles for special notice from this number of *The Quarterly*, for each is of high excellence and makes most interesting reading. Economic and social problems occupy a large place and history is well represented. It is especially interesting to find two articles on India before us.

Mr. Dodwell shows an intimate knowledge of his subject in "British India before Plassey." In a clear and attractive manner he traces the decline of Moghal rule, showing its effect on the policy of the English traders. That policy would have been a purely commercial one had the Moghal emperors been able to protect the interests of the East India Company, but their inability to do so led to a policy of self-protection by the building of fortifications and the development of an army. Mr. Dodwell sketches the early days in the South-East and in Bengal, when it seemed several times as if the English would be driven out of the land altogether. Nothing but their endurance and tenacity saved them and the Company. These early traders by the progress which they made and the valuable interests they established during the century that preceded Clive's advent, were the real founders of our Indian Empire.

The Earl of Cromer has some suggestive things to say in his short article on "Indian Progress and Taxation." It is true that India has within recent years made much progress in commerce and industry, but "the population generally is extremely poor" and this fact ought to be

remembered when there is talk of any reform. Political quiet and living conditions can only be conserved by light taxation, and if reform in education, sanitation and other matters means increased taxation, delay would not be unwise.

"The Vagaries of Recent Political Economy" is the subject of a delightfully lucid article by Professor Nicholson. The dominating tendency at present is towards the mathematical treatment of Economics and this has led to the use of unfamiliar technical language which is only understood by "a small circle of initiates." Professor Nicholson pleads for a more popular representation of the subject.

Home Rule in one of its aspects is discussed by Mr. Crammond in a clever exposition of "the Financial Difficulties of Federalism." If decentralized Government results in such an awkward financial situation as the author indicates, the case against Home Rule is indeed strong. In another article the Liberal Land Policy is adversely criticized and a more workable scheme suggested for the Unionist campaign. Other articles worth careful study are "Forestry in England and Abroad" and "Germany under William II."

THE LONDON QUARTERLY REVIEW.—(October 1913.)

This number contains an interesting article on "Egypt's Impending Fate," by Saint Nihal Singh, which gives a comprehensive review of the complex situation of present-day Egyptian Politics, but finds it impossible to give any real suggestions as to how the existing anomalies can be removed. Another striking article is that by Ferrand E. Corley on "The Poverty of God," in which he discusses the meaning and value of the Christian conception of the self-limitation of God. In the Incarnation and in the whole story of Christ's life witness is borne "to the divine willingness to accept, to choose, to seek limitation for the sake of man," and the main body of the article is an able attempt to show that this conception is "harmonious with the will and character of God exhibited at large." In an article entitled "Cavour and his Times," W. Ernest Tomlinson gives an excellent sketch of the character of the great diplomatist, and in "A Protestant of the Second Century" J. A. Findlay contributes a sympathetic and scholarly account of the part which Marcion—the great heretic of the second century—played in the history of the early Church. Amongst the "Notes and Discussions" are some shorter articles of

considerable interest, and there are also numerous reviews of recent literature.

THE MOSLEM WORLD.—(October 1913.)

The most important article in the current issue of this interesting quarterly deals with the effects of the Russian occupation of Northern Persia. The writer—Rev. S. G. Wilson—is optimistic as regards the influence of Russian rule upon Missionary work. He introduces his subject by a short historical sketch of Christianity in Northern Persia pointing the contrast between the flourishing state of the early Church and the present condition of things when the Christians throughout the whole region are comparatively few in number. The cause of the change has been wholesale persecution and slaughter. The coming of the Russians, if the Russian leaders are not imbued with anti-Christian and irreligious tendencies, will put an end to persecution and extermination, will remove legal disabilities of the Christians, will give greater religious freedom and allow the evangelistic agencies already operating with success in Russia to extend the sphere of their labourer. *A Symposium* by Medical Missionaries upon “Islam from a Medical Standpoint” makes depressing reading. The article gives clear evidence of the obstacles which superstitions and fatalism and specially Mohammedan marriage laws present to the giving of medical relief. The short articles with their calm citations of actually experienced facts prepare us for the tone of the writer on “Points of Contact and of Contrast.” He shows that the effort to find points of *contact* has gone far enough, and that a policy ignoring the characteristics in which Mohammedanism differs from Christianity—which characteristics are essential—makes the Christian Missionary despised by Mohammedan and looked upon as one ready to confess himself beaten.

THE MONIST.—(October 1913.)

This number opens with an intensely interesting article on Mathematical Logic which might be read with a certain amount of pleasure by those who as a rule concern themselves neither with logic nor with mathematics. The most important article in the number bears the somewhat misleading title of “Christian Elements in the Bhagavadgita.” The writer is Richard Garbe. In a few pages at the end of the article he does indeed deal with the subject suggested by his title, but for the most part he is

concerned with a reconstruction of the arrangement of the Gita and a discussion of the mutual relations of the various elements in its teaching. He finds that it is originally a theistic work, belonging to the sect of the Bhagavatas, and that when they were won over by the Brahmans, a recension of the poem was made in which Vedantic teaching greatly modified the original philosophical setting borrowed from the Sankya and Yoga philosophy. We do not remember to have seen anywhere else so clear and convincing a discussion of the problems which are connected with this widely popular poem. We question, however, whether the poem holds the balance so evenly between quietism and works as Professor Garbe would seem to indicate and it is by no means certain that the teaching is, as he says, overwhelmingly theistic. It all depends on the definition you give of theism, and we are inclined to think that theism is not so much "overwhelming" as "overwhelmed" by the pantheistic elements which are so frequently apparent.

THE THEOSOPHICAL PATH.—September to November.

A great many pages in these numbers are taken up with an account of the International Peace Congress at Visingsö, Sweden. At this congress Katherine Tingley, the editress of the journal, seems to have taken a leading part. There are numerous photographs of the different meetings which were evidently held in the open air. One wonders if it ever rains in Sweden. Two of the numbers contain rather gruesome articles entitled "The Romance of the Dead," in which a faithful account is given of the treatment meted out to the corpses of various historical personages. The French Revolution is responsible for most of the "romance." A well-informed descriptive article on Australia and some excellent reproductions of Michael Angelo's more important Vatican pictures are the outstanding features of the September number. The Australian article is continued in the October number which, also contains a somewhat inadequate article on "Ossian" Macpherson.

An altogether one-sided article on H. P. Blavatsky occupies the place of honour in the November issue and, after reading it, it is a relief to return to the ordinary human plane on which one may be allowed to appreciate the beautiful illustrations of the articles on the Yosemite Valley and the town of Lima.

ACKNOWLEDGMENTS.

GOVERNMENT PUBLICATIONS.

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Annual Report of the Archæological Survey of India, Eastern Circle, for 1912-13. Government of Bengal.

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Annual Report of the Archæological Department, Southern Circle, Madras, for the year 1912 and 1913. Government of Madras.

Annual Report of the Civil Veterinary Department, Bihar and Orissa, for the year 1912 and 1913. Government of Bihar and Orissa.

Annual Report on the Police Administration of the Town of Calcutta and its Suburbs for the year 1912. Government of Bengal.

Annual Report of the Punjab Veterinary College, Civil Veterinary Department, Punjab, and the Government Cattle Farm, Hissar, for the year 1912-13. Punjab Government.

Annual Returns of the Lunatic Asylums in Bengal with Brief Notes for the year 1912. Government of Bengal.

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Report on the Administration of Civil Justice in the Punjab and its Dependencies during the year 1912. Punjab Government.

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Report on the Administration of the Excise Department in the Province of Assam for the year 1912-13. Government of Assam.

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Report on the Excise Administration of the Punjab during the year 1912-13. Punjab Government.

Report on the Income-tax Administration of the Punjab during the year 1912-13. Punjab Government.

Report on the Police Administration in the Bengal Presidency for the year 1912. Government of Bengal.

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THE CALCUTTA REVIEW

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EIGHT YEARS OF UNIVERSITY REFORM.

BY PRINCIPAL H. R. JAMES.

THE University Act is dated 1904. The new regulations of Calcutta University came into force in August 1906. The last degree examinations under the old regulations were held in 1908. The new intermediate examinations and the first degree examinations under the new regulations were held in 1909. The Entrance Examination was held for the last time in 1909. The new Matriculation Examination did not come in till 1910. Thus the new system has only really been in full working for four years, though in a sense the reformed university has been in existence since 1904. On the whole the new era is best dated from 1906, eight years ago. Even that is not a long time considering the extent and importance of the changes introduced; but it is long enough to justify an attempt to review and sum up the results in Bengal of the reforms prepared and initiated between 1901 and 1906, and carried out in the years from 1906 to 1914. How far have the aims set up been attained? How far have the expectations formed in 1906 been justified by the event?

Another reason for a present casting up of accounts is that already before the structure built up from 1901 to 1906 has settled on its foundations new construction is in progress. New problems arise one after another and

already newer ideas have sprung into being which claim a higher validity than the ideas which shaped and controlled university reform from 1901 onwards. The talk to-day is all of teaching and residential universities, of the London University report, of University professors ; and the newer ideas have begun to take form and substance in the Dacca and Patna University schemes. If we can find breath in spite of the rapidity at which the pace has latterly been set, it is very opportune just now to take the measure of actual progress since 1906.

It is plain at the outset that one or two expectations which were rife in the years 1901-1906 have not been fulfilled. There has been no falling off of numbers, whether we take those of examinations or of colleges. The total number of students in the Arts Colleges of Bengal in 1905 was 5,190, in 1912 it was 9,716. There was for a year or two, and for special reasons, a check in the rapid advance of numbers at the Matriculation Examination. Up to 1906 the highest total at the Entrance Examination had been 7,421 in 1904. At the examination of 1909 there were for exceptional reasons 9,715. At the first Matriculation Examination of 1910 the number of candidates fell to 3,596, but last year again it was 9,477 ; and this year it is over 11,000. The totals of the Intermediate Examinations which took the place of the old F. A. Examination, have in five years risen from 1,671 to 6,000 ; that is to say, for the I. A. of 1909 there were 1,344 candidates and for the I. Sc. 327 ; for the I. A. and I. Sc. together last year (1913) there were 5,503 ; and this year there are 5,977. The highest total for the F. A. was 4,139 in 1902. The highest figure for the B. A., previous to 1909, was 2,231 in 1904, and of these only 331 passed. In 1913 1,948 candidates presented themselves and out of these 1,217 passed. This year there are 2,602 candidates. Meantime the B. Sc. Examination, first introduced in 1902 (when there were 12 candidates), has risen from 38 in 1908 and

111 in 1909, to 406 in 1913 and 425 this year. In the B. A. and B. Sc. together, there has been a rise in ten years from 2,245 to 3,027. The most marked advance, however; and the least clearly expected beforehand, is in the M. A. and M. Sc. candidates, that is—in Calcutta University—in post-graduate study. The highest figure for the old M. A. Examination was 344 (in 1908) and this was swelled by the fact of the approaching change: in 1904 it had been 196. In 1913 the total number of candidates has been 487; it will be much larger this year and very much larger the year after. The total number who qualified for the degrees of M. A. or M. Sc. last year, was 266, whereas previously to 1908 (when it was 173) it never reached a hundred. This last is a very notable result: and it is unexpected. Contraction rather than expansion was what was expected by those who looked apprehensively on university reform and who feared that the attempt to raise standards must inevitably result in reduction of numbers. Numbers have not been reduced but have risen, and markedly at the highest stage, precisely where the introduction of a two years' course in place of a one year's seemed likely to deter candidates through the increased arduousness of the task of carrying studies beyond the attainment of the Honours degree.

The most obvious result of eight years of reform has been expansion, and most of all expansion at the highest or M. A. and M. Sc. stage. This is exactly the reverse of what was commonly anticipated both by those who pressed on, and by those who resisted, the reforms of 1906.

What of improvement? Looking to the colleges, there has undoubtedly been in all, or nearly all, substantial improvement. This is true alike of Government, Missionary and Private colleges. The extent of the improvement could only be fully appreciated by one who had visited all the colleges in 1905 and 1906 along with the University Commissions of Inspection, and who again made the round in the year just past. Everywhere he would find

some measure of advance ; in some colleges very great advance. The advance would be to be observed specially in four particulars :—(1) Laboratories, (2) Staff, (3) Buildings, (4) Libraries. The greatest improvement of all has been in the equipment for science teaching. Well-equipped laboratories, larger or smaller, have been built since 1906 at Dacca, the Scottish Churches College, at St. Xavier's, at the Cotton College, Gauhati, at a dozen other places : and there are the magnificent laboratories recently opened at the Presidency College. In contrast with the state of things subsisting in 1905, when there was in many places science teaching without anything bearing the semblance of a laboratory, now, wherever there is a pretension to science teaching, you would find tolerable laboratory accommodation commensurate with the amount of science teaching undertaken. Proper provision is also made for apparatus and upkeep in proportion to the work to be done. The improvement in libraries has also been very great. There is something of a library now in every college. Formerly there were many colleges claiming to be places of education and study with practically no library at all. Many of the lesser colleges now have quite good libraries, for example, the Jagannath College, Dacca, and the Tej Narain College, Bhagalpur. The improvement in arrangements for residence has been as marked. In 1906 there were 383 students in college hostels, now there are 2,378.

But, perhaps, two or three concrete examples best show the reality and extent of the advance made by individual colleges. The following three will serve. At Rajshahi College the staff is now 22, whereas in 1906 it was 10. A new Physics laboratory has been built. The laboratory grant is £300 instead of £125. The library has been improved. A students' Common Room has been built and corporate life is developing as evidenced by games, societies and a college magazine of remarkable merit. At the Bihar National College, Bankipore, the advance in staff is from 7

to 16. Good laboratories have been built for Physics and Chemistry, whereas there was no laboratory at all (though science was taught) in 1906. Library there was practically none in 1906: now there are over 2,000 books, all carefully selected. There is an excellent hostel for 40 boarders. This has been one of the most remarkable transformations. The Wesleyan College, Bankura, now one of the best organized and equipped of our residential colleges, has developed remarkably in these eight years. In 1906 the staff was only four: now it is 10, there are excellent laboratories, Physical and Chemical, an Astronomical Observatory and complete electrical installation, all developments since 1906. There is a hostel for 88 boarders, unusually complete in its arrangements, which include electric lighting: a second hostel for 70 is planned and likely soon to be built. All this is an expansion from a small hostel for 30 in 1906. The number of students has risen from 74 to 250. These examples are cited merely as good typical examples of the character and extent of the advances made by the affiliated colleges.

While there has been advance in the colleges individually, there has been advance proportionately as great, or even greater and more significant, in the University itself. Within the last six years, four permanent University Chairs have been founded: (1) The Minto Professorship of Economics, (2) The Hardinge Professor of Mathematics, (3) The Carmichael Chair of Ancient Indian History and Culture, and (4) The George V Chair of Mental and Moral Philosophy. Besides these, the University itself has more recently appointed for terms of years professors of Comparative Philology and English. These University Chairs have been filled by men of high distinction, able to give tone to the new academic society. This makes a very notable advance.

Even more remarkable are the endowments which have fallen in to the University of Calcutta in the last two years, "princely benefactions" which promise to strengthen

the teaching on the science side fully as much as university professorships strengthen it on the side of the humanities. There was first the gift of seven lakhs from Sir Tarak Nath Palit in 1912, followed by a further gift from the same munificent donor of seven lakhs and half, and by the gift of ten lakhs from Dr. Rash Behari Ghose in August 1913. These gifts have certainly been epoch-making. The fruits of these have still to be reaped.

These gifts and achievements have been so great that they have thrown into the shade other gifts and achievements, which would have been notable had they stood by themselves. The new building, made possible by the Maharaja of Darbhanga's gift of two and a half lakhs in 1908, and hence called the Darbhanga Library Building, has given the University space sorely needed for its administration as well as provided examination halls and library accommodation. Among the many scholars and men of science who have delivered or are soon to deliver, courses of lectures as University Readers are names of such celebrity and eminence in their subjects as Professor Schuster, Dr. Forsyth, Professor Oldenberg, Dr. Jacobi, Dr. Vinogradoff, Professor Sylvain Lévi. Heroic efforts have been made to cope with the problems of students' residence in Calcutta. The University has established and housed a University Press. The schemes most lately taken in hand have been the institution of Travelling Fellowships, the reorganization of the Press and Office establishments, and a scheme for the establishment of a Provident Fund for University teachers. The activities have been great and many-sided.

All this has happened in the Vice-Chancellorship of Sir Asutosh Mookerjee, who succeeded Sir Alexander Pedler in 1906, and whose name is thus inseparably linked with the greatest expansion experienced by Calcutta University in the course of its history in an equal number of years.

But while there is evidence of advancement and improvement everywhere, there are aspects of the history

of the university through the last six years which are not so satisfactory, where it is a debateable point whether the university has advanced or gone back. One of these, unfortunately the most important and the most debated, is examination standards. Another is methods of instruction. The vital importance of these questions is at once evident, when it is recalled that it was in dissatisfaction with methods of instruction and examination results that the whole movement for reform started. Has there been improvement in examination standards? A great many people say decidedly that there has been no improvement. Some entitled to respectful hearing say that there has been a falling off of standards. The two questions are closely connected, but they are not identical, and they require separate consideration.

As regards methods of instruction, a great deal has been said of tutorial work as a supplement to mere lectures. Tutorial work meant in 1901, and it always must mean if it is to have efficacy, individual teaching, or approximately individual teaching. What has been fostered by the university has been tutorial *classes*. A class of 100 to 150 is broken up into sections of 20, 30 or 40, and these are taken once or more times a week as separate classes. No doubt a class of 20 or 30 can be more carefully handled than a class of 150, but the teaching remains class teaching and the actual attention paid to the needs and weaknesses of individual students must be small.

On the other hand much has been written against the absorption of ready-made knowledge in the form of dictated notes. This was the old weakness. The student swallowed his dictated notes, but beyond the words of the notes in too many cases he did not learn anything. Something has been gained by the vigorous protest against this negation of learning made at the time of university reform, but there is much reason to fear that the old method still prevails very largely.

As regards examination standards, it is positively affirmed by many competent observers that we have gone back. I do not think so myself. I certainly very strongly desire not to think so, and this possibly colours my conclusions, but looking as impartially as I can to the facts as they come under my observation, I do not think there has been retrogression, though there has not been as much advance as we hoped and planned in 1906.

Now, as always, the root of the matter lies in matriculation. The quality of your university teaching and university results will always turn, mainly or largely, on the quality of the alumni you admit to your university studies. This is why German universities stand academically so high. All their students have a high standard of competence from the beginning. This is why the criticism has so often been passed upon the greater English universities that the mass of their undergraduates are below the university standard, and you have the deep line of cleavage between Honours men and Pass men. This is why Calcutta University problems are so ponderous and so difficult to handle. Unfortunately, it is precisely at the matriculation stage that the question of the standard of examination is most in doubt and the problem for various non-academical reasons most acute. I cannot discuss the problems in this paper: it would take too long. I merely point to the want of assurance about matriculation as at the root of all our problems and to the nature of the doubts. The criticism is that the standard of examination as a whole is too low, that shoals of potential undergraduates are still let through without any of the proper academic outfit: that, in particular, the English standard has been made too easy: that the mathematical papers are so cheap that cent. per cent. marks are common and nearly cent. per cent. is frequently attained both in the compulsory and optional papers: that the optional papers generally confuse results, so that more than fifty per cent. of the candidates are

in the first class. The main explanation of the facts will, I believe, be found in this. In 1906 it was laid down, and rightly laid down, that relatively easy papers *with a high standard of pass-marks* form the best test. We have the relatively easy papers, as anyone may see who will look for them in the University Calendar, but we have not introduced the co-relative, the high standard of pass-marks. We have kept very nearly the old standards. This is the key to results which seem at first paradoxical.

I do not, so far as I can judge, find that the same criticism applies to Intermediate, B. A. and B. Sc. standards. So far as my experience extends, undergraduate studies, both for the first two and the last two years of the course, are being reasonably conducted and lead to moderately satisfactory results. The first division in the intermediate examination, though large, is not like the first division at matriculation altogether out of proportion to the total number of candidates, and those who pass in the first division have a real degree of merit. The number of candidates who win Honours in B. A. and B. Sc. examinations is growing, but the Honours studies are deeper and more thorough and the Honours are deserved. These are my impressions. I am not so fully assured of their correctness as I should wish to be. The tables given in Chapter III of Mr. Prothero's quinquennial review require informed and discriminating study before judgment is pronounced.

When we carry our survey on to M. A. studies, we are confronted with new problems, not with one simple problem, but with many intricately related to the old problems and to each other. We find ourselves not merely in a state of transition, as has frequently been said of late, but closely on the borders of a state of chaos.

Studies for the M. A. and M. Sc. degrees have been the most striking of the new developments since 1906 and the sudden development on this plane involves further problems. It involves the problem of university organization as a whole; the relation of the university to the

colleges and of the colleges to each other ; the relation of University Professors to the whole organization and, in particular, to the Boards of Studies. It involves the problem of post-graduate study, its methods and aims. It involves new phases of old problems ; the problem of residence, of college organization, of collective university life.

I have not proposed in this paper the ambitious aim of finding the solution of these many difficult problems. I am content with the more moderate aim of stating the problems correctly. But the right statement of a problem is often half way to its solution.

The Calcutta University has outgrown its constitution, as did civic Rome after the Third Punic War and the British Empire in the eighteenth century. It has all happened very suddenly, in fact within the short space of two years, so that the problem has taken us unawares. We have now four endowed University Professorships which stand in no organic relation to the University as reconstituted in 1906. The Professors are, and are intended to be, new forces in the academic constitution, yet they stand in no clearly defined relation either to the Senate, or Syndicate, or Boards of Studies. It is possible to be Hardinge Professor of Mathematics, or Minto Professor of Economics, or Professor of Comparative Philology, and not to be a Member of the Faculty and, a fortiori, not on any Board of Studies. Perhaps this ought to have been provided for, when the University Act was framed and when the new regulations were penned in their final form in 1906. But the problem by no means ends here. These four endowed professorships are definite in number and limited. It would not be difficult to find a solution which would reasonably satisfy the old conditions and the new. But as was said at the birth of Gad : " a troop cometh." It appears that the Senate has the power by the framing of a recommendation, if not by the stroke of a pen, of multiplying University Professors indefinitely by the simple expedient of qualifying the title Professor with the word Assistant.

The University may not unaided create a single University Lecturer or Reader, not to speak of University Professors, but it may make a score or more of Assistant Professors. I do not say this is wrong; but I do say that it modifies very seriously the constitution as shaped from 1904 to 1906. For very naturally and even reasonably, the teacher who adds the adjunct "University" to his professional title, claims a certain superiority. His work claims to be more advanced work and the transition to a claim to a higher status is easy. This produces at once a very serious constitutional crisis, and threatens all at once to relegate the whole body of teachers in colleges—many of them men of acquirements, distinction and experience as great as, or greater than those of the new university teachers, to an inferior status. Some who yesterday were University Lecturers, will to-morrow, by the simple process of being left out, appear to lose rank. But the case of that larger body who have not even been University Lecturers, who do not do any M. A. or M. Sc. work at all, also merits consideration. Already unenfranchised academically, perhaps altogether unrepresented, they will be still further depressed by having interposed between their whole body and the body of College Professors who are Fellows of the University, a solid phalanx of university teachers who will lay claim to a higher status and a share in university control: and, whose claim, precisely for the reason that they are already bound closely to the central authority (which brought them into being), will stand a far better chance of having their claims considered and recognized.

This raises at once inevitably the vexed question of the relation of the colleges to the university. Are the federated colleges to have no rights in the university, other than to take orders and to have their candidates admitted to examinations? Is not a constitution conceivable, in which at least heads of colleges should all be Fellows and, possibly, elect at least one representative to the academic executive or Syndicate? But that again lands us in new

difficulties owing to the very diverse character and capacity of the colleges. If our problem were merely to frame a constitution which should unite the "Internal" or Calcutta colleges into a teaching and residential university, could we possibly place the Central College with no teaching higher than the Intermediate, Bishop's College with its ample grounds and limited number of students, the Scottish Churches College with 1,200 students and M. A. affiliation in two subjects, Presidency College with 950 students and M. A. and M. Sc. affiliation in six subjects and teaching to the master's standard in three more, on the same footing? It is a difficult problem. Yet it can reasonably be maintained that no college ought to be wholly unrepresented, and that colleges should be represented in proportion to their contribution to the teaching of the university as a whole.

The constitution which will reconcile all the various factors and interests concerned, must unite into an organic whole, the university and the affiliated colleges giving due weight to each: it must give university professors a fixed and definite relation to the constitution, sufficiently influential without disregarding the due rights of the teachers in the colleges. It must very carefully safeguard the dignity of college teaching, and give scope both to the colleges to enlarge their affiliation and to college professors to share in the higher teaching. This last may be done by purposely fostering inter-collegiate M. A. lectures, a thing that has not been done as yet, though it has been spoken of, and is clearly contemplated in chapter XI of the Regulations.

The problem of Boards of Studies is specially acute. No one, I think, could view the boards as constituted this year with satisfaction. Those who know the actual working and the effects of the present system are profoundly dissatisfied. While there is in Calcutta an abundance of scholars fitted for the work of all but two or three of these boards, the choice in practice is limited to a

handful of men, well qualified it may be in their own subjects, possibly in more than one, but not numerous enough to share out the whole of the work satisfactorily. The work of any board is exacting enough to make serious demands on the spare time of its members; yet while qualified men are unemployed, the same names are found on board after board with the natural result that most Boards of Studies are scantily attended and that sometimes even a quorum is wanting. The system needs to be entirely changed. No doubt it is well intended. Possibly it might have worked well. But it does not. It was no doubt intended that all the best qualified men should be in the Senate and on the Faculty, and that the Faculties would elect the best qualified men, and these only, to the Boards. It does not happen so in practice. Instead of a rule that one Fellow should be a member of not more than five Boards, it should be laid down that ordinarily a Fellow should be a member of *one* Board and *one* Board only; only very exceptionally of *two*; never of more than *three*. It is not solely a question of qualification and capacity, it is a question also of time. The work of the Boards is important and onerous. Most of the members live full lives apart from the Boards. Time and energy should be economized by division of labour.

A possible constitution would be the University Professor *ex-officio*, a limited number of members chosen from (or elected by) the university lecturers on the subject, and a limited number more elected by the Faculty. To these the Board should have the power of co-opting up to half its total strength. You want on the Board (1) those who have full practical knowledge of the subject; (2) those who are actually doing the teaching of the subject; (3) most of all, those who combine both qualifications. As the present system works out, neither of these objects is satisfactorily secured.

The problem of post-graduate study is difficult, because that also has rushed on apace before we were ready

for it. We may be to blame for not having been ready for it : but blaming does not help. We have to find a solution which shall be good for the university and good for education, and which shall reconcile fairly the interests engaged. Any conflict of opinion that exists is confined within fairly narrow limits. If the impression has gone abroad that divergence of view is wide and irreconcilable, that impression is a mistake.

To begin with, the issues have been confused by the use of the term "post-graduate." Etymologically the word may be applied to any studies which are carried on by students who have already taken any university degree, but the word has also acquired a certain connotation founded on the character of the studies. Post-graduate study is often used to mean studies of a higher kind, and specially studies which distinctly involve independent investigation or original research. It is very important to settle in which sense we intend to use the term in the Calcutta University. The etymological sense is rightly conceded to our M. A. studies, but are they as yet post-graduate studies in the deeper sense? A criterion is readily furnished by words used by Sir Asutosh Mookerjee in his Convocation address of 1912. He then affirmed that though there was M. A. teaching in the Calcutta University, that teaching was of the same type precisely as the undergraduate teaching. Whether that pronouncement was disputable (it was disputed at the time) may be left aside. It is of importance to enquire whether the type of teaching being inaugurated in the new university classes, which have grown so rapidly in the last two years and which are likely still to grow, is "post-graduate" in the higher sense according to the Vice-Chancellor's criterion, or not. Unfortunately, there is no guarantee whatever, not merely that the method of the university classes is to be of higher type, but even that it is to be of different character from that of undergraduate classes in affiliated colleges previous to 1906. There is an elaborate organization of lecturers

and lectures : but there is nothing else. This is what should give enthusiasts for "post-graduate" study pause. It is the reason for doubt as to the efficacy of the new organization, and was the ground of a plea for a little more consideration and deliberation put before the Senate on the 7th of March last.

There is, of course, a possible alternative. It is to organize more thoroughly teaching on a somewhat more limited scale, to make the numbers in university classes bear a definite proportion to the organization which the university can effectively frame. There is no law of nature that every applicant who offers himself for admission to a place of education or a course of study, must be provided for. If the education is advanced or specialized, or costly ; above all, if it is largely subsidized by the State, there is good reason for keeping admission within manageable limits. The people who advocate moderation or limit, are not necessarily unfriendly to the spread of education ; they may even be found in the end to be the friends of better mind.

What above all is to be deprecated and avoided at the present time is such an embroilment and such an embitterment of feeling as might hinder educational advance and prevent cheerful and wholehearted co-operation. The united effort is more than ever wanted to solve the new problems with which we are confronted, as well as to deal soundly with the old. Differences of opinion there must be, perhaps even conflict of opinion in matters of such importance and difficulty. The practical abrogation for the space of three years of all constitutional checks to the rule of one man in the university, has both created powerful interests centred in that rule and provoked a variety of counter-interests and oppositions, which united, would also be powerful. There are not wanting signs of the imminence of unprofitable conflict. Unless we are altogether of the school of Heraclitus, we may reasonably fear that conflict is more likely to retard than to advance the ends that all

in common desire, the advancement of true learning and discipline. Perhaps the gravest element of danger lies in the gathering host of university teachers with their shadowy yet formidable claims to give the law, not only to the university, but to the colleges. The colleges cannot tolerate claims that threaten to reduce them permanently to a position of relative insignificance.

A little reflection will show how delicate the present position is, and how careful a prudence, what cautious consideration, is required for the deft handling of it. On the one hand you have the great body of college professors, with whom up to the present time the sole arbitrament of university affairs has practically rested; on the other hand, you have a new and increasing class of university teachers with great and vague pretensions, arrayed under university professors, whose names and status, necessarily and properly, carry great weight. The newly-arrived university professors would be somewhat less than human, if they did not arrogate to themselves a little more authority than their knowledge and experience, and even their attainments, strictly warranted. The men who have won their rights in the university by years of work and by the painful ingathering of experience on the spot would be more than human if they did not, to some extent, resent a wholesale supersession of their former status and authority, by not one or two persons of eminent attainments, but by a mixed multitude of very various degrees of attainment. Any such tension and friction should be anticipated and avoided, if by any wise arrangement it can be. The interests of colleges and university teachers in colleges, and of teachers in the university, are not *fundamentally* opposed, but fundamentally the same. The opposition is on the surface and an accident of present circumstances rather than essential and permanent. What is wanted is the linking up of the scattered and disconnected elements into an organic whole. But no one-sided and partial settlement will meet the needs of the

present time. The only end which will give a safe and satisfactory solution is to reconstitute the university as an organic unity, and in this organic whole, colleges and university, university professors and professors on the staffs of colleges, boards of studies and teachers, must find due co-ordination. To attain this organic unity, the co-operation of colleges and university professors, of Syndicate and Senate, and not least, of the Government of India, is indispensable. The first step is the formulation of a careful and well-considered scheme, in which all the factors in the problem shall be placed in the best practicable relation. This should be the task, not of any one man, but of the best-balanced and best-informed minds in the university. The right moment for this has taken us somewhat un-awares, but it must not be let slip.

And in this settlement it is to be hoped that the main determinant will be not the facile inclination to adopt the course that will win popular applause, but a deep and firm fidelity to educational principles. The lessons of the past should be kept in mind, old errors should not be repeated in new forms. Great aims, great names, great claims, these will do much for Calcutta University, but only on certain conditions. The aims must be the incentive to sincere and laborious effort; the names must be its own names, not borrowed; the claims must be founded on realities, not hollow pretensions. One who has learnt deeply in his youth, from Plato and Aristotle, the doctrine of the *περας* and the *απειρον*, cannot easily accept a standard to which we too frequently appeal in Bengal, the standard of quantity. In education, as in history and in war, mere number is of relatively small account. Character, intelligence, discipline, purpose—these are what count. The easy acceptance of the popular course of action, hasty adoption of cheap expedients as a way out of difficulties, the preference for the showy, the grandiose, the quickly-raised superstructure, before the sound, the moderate, the foundations well and truly laid, are not the ways best

calculated to secure advance towards the highest educational ends. Often the narrow and difficult and troublesome way is the true path, the path that leads to the heights. The service of learning is a jealous service. The service must be wholehearted, farseeing, austere, disregarding of temporary ends and personal ambitions, even of present results. Unless the principles of education and the lessons of experience are better borne in mind, there is fear that the ultimate verdict on Calcutta University may be "These people worship me with their lips, but their hearts are far from me." Not thus is a great nation built.

The aim of this paper has been heuristic not critical ; rather to find right direction in present perplexities than to take the measure of achievement and failure. It is no part of the aim to pass deliberate judgment on the work of the last eight years. They have been years crowded and remarkable, years full of strenuous effort ; the work done has been accomplished in face of manifold difficulty and there is a great deal that is good to show for it. But the circumstances of the present time demonstrate clearly enough the necessity of taking thought and looking ahead, of seeing whither the steps taken from day to day are leading. Much has been done piecemeal and hastily, here a little and there a little, without any clear outlining of policy or indication of the ends to be finally attained. There are some people who say that this is right and practical and bold and business-like. With such the present writer has some controversy, though none with those who with imperfect means in the face of difficulties honestly endeavour to help things forward. Nevertheless there seems a good deal to be said for a settled plan, a coherent policy in which every measure taken is directed to one definite and well considered end. There was extraordinary appositeness for our present educational problems in the words which Lord Carmichael quoted at the unveiling of Lord Kitchener's statue on Saturday, the 21st March, Lord Kitchener's own words : firstly,

“That each step in reform must be founded on an accepted policy, based upon admitted principles arrived at either by experience or by reasoning, and laid down in clear language, understood by those who have to apply it, and intelligible to those to whom it is applied.” Secondly, “In all things to look ahead, to consider not merely the requirements of the moment but the abiding needs of the country—to build not merely for the present, but to lay the foundation for the needs of the future.”

These principles are as necessary and binding in the educational sphere as in the field of army reform and it is by these that the work of the past eight years, and of the years next succeeding, must finally be judged.

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WILLIAM BLAKE, POET, ARTIST, MYSTIC.

BY NICOL MACNICOL, M.A., D. LITT.

EVERYONE who has any acquaintance at all with the achievements of William Blake will admit that he is at least one of the most singular figures in English Literature. Beyond that there is not likely to be general agreement as to how best to characterise him. As far as I am aware Michael Angelo and Dante Rossetti are the only others in any country besides himself who have attained high rank in two of the arts, poetry and painting. But Blake is unique in that he was not only a poet and artist but at the same time a visionary, a mystic, who employed his other accomplishments as media for messages directly communicated, as he believed, by the supernatural agency of vision and inspiration. To some Blake is simply a great poet, who has produced a very limited amount of the most perfectly simple and natural poems in the language. To others he is an artist of extraordinary originality and power. To a few he is greatest of all as a seer. It is this third aspect of his personality that makes his work so difficult to appraise, for what to some seems inspiration, to others is simply insanity. To himself his other gifts had their value solely as means by which to convey his message. He was a seer first, one who, as he says, out of the "ruins of time" builds "mansions of eternity." He resented with absolute ferocity any interference with what he considered the chief end of all his life and work, describing a friend who tried to turn him aside to less visionary themes as a "hired villain" who sought to "bereave him of his life." Such a personality might well interest us and repay study simply because it is so bizarre and so unusual, but that Blake was much more than that is

evident when we consider those who have been most attracted to him. Among the editors of his works have been two poets, Dante Gabriel Rossetti and W. B. Yeats, while another, A. C. Swinburne, has written a volume in exposition of his mystical system. Others who have been greatly attracted and influenced by him are the poets Christina Rossetti and James Thomson, the author of the "City of Dreadful Night," as well as that beautiful soul, James Smetham, while there are traces of his influence in the poetry of Tennyson. When Francis Thompson hung in the streets of London on the very edge of despair he still kept for his comfort a volume of *Æschylus* and a volume of Blake. To-day more than ever this poet and seer is coming into his kingdom, as we can perceive from the testimony to his influence upon them of many contemporary writers from Bernard Shaw to the author of the "Crock of Gold." Certainly one of whom those things are true must possess qualities of an unusual order and such as will repay our study.

William Blake was born in London in November, 1757, the son of a hosier who is said to have come over from Ireland and changed his name from O'Neil. With the exception of three years he seems to have spent his whole life in that city till his death in 1827. There is nothing that we can learn of the other members of his family that indicates the springs in which his genius had its source. Like so many other remarkable men, heredity leaves him quite unexplained. He was fortunate in his education in that he was never sent to school but was left to follow his own wayward bent, reading Swedenborg and Shakespeare and taking long country walks during which he had visions of angels, whom he saw walking among haymakers and filling the trees with the sheen of their bright wings. Already at the age of four God had "put his forehead to the window and set him screaming" and on another occasion his unsympathetic mother beat him for saying that he saw the prophet Ezekiel. At the

age of fourteen he was apprenticed to an engraver and again was fortunate in that the last five years of his apprenticeship were spent in drawing tombs and architectural detail in Westminster Abbey. No better environment could have been found for his peculiar genius in the midst of the noise of London than the Gothic cloisters of the Abbey, peopled by the spirits of the great men of England who were far more real and near to this visionary student than were his fellow-apprentices. In 1780 he married Catherine Boucher, the daughter of a market gardener, whom he taught after their marriage to read and write. Her whole life was one of beautiful devotion to her husband whose death she survived for only four years. Blake could not have been an easy man to be the wife of, and we are not surprised that she had considerable awe of him. She proved herself, however, as apt a pupil as she was diligent and devoted, so that they were able between them to carry through entirely the publication of some of his works, printing, binding, designing and colouring them with their own hands.

As in the case of most men of great creative genius Blake's life had few outward events of special significance. It was one of his own characteristic doctrines that what is important in human life is man's states, for these are eternal. "He passes through them like a traveller." The idea is expressed by his disciple W. B. Yeats in quaint lines :—

Time drops in decay
Like a candle burnt out,
And the mountains and woods
Have their day, have their day ;
But, kindly old rout
Of the fire-born moods,
You pass not away.

Apart from that inward life of variety and adventure Blake's life may appear to us monotonous and dull. It was almost absolutely devoid of outward incident. For a few years he deserted London for Felpham on the Sussex

coast; then he was back again. Beyond a removal from South Molton Street to Fountain Court, Strand, there was little change in the circumstances of his life. He was content to live in his humble two-roomed house with his wife, able to maintain himself and her in a poverty that was never squalid by hack work as an engraver. Poor as his house was "the millionaire's upholsterer," one of his friends tells us, "could furnish no enrichments like those of Blake's enchanted rooms. The most exciting event in this period of his life was a false charge of sedition brought against him by a vindictive soldier. He was triumphantly acquitted and for us the chief interest of the incident lies in the report many years after of an old man who had attended the trial as a youth and with whom there remained only the memory of Blake's flashing eye. The outward indications of the drama that was enacting itself beneath that surface of convention were the books that he published and illustrated and the mystical poems which, as Dr. Garnett says, "met with the reception that was to be expected from earthly publishers." This did not, however, in the least disturb him, for he was assured "in his figurative language, that they were handsomely printed and bound in heaven and eagerly perused by spiritual intelligences." Of what turmoil of the soul was behind that placid exterior, what struggles and triumphs were enacting themselves within, he himself sometimes gives us glimpses. "Temptations," he says in one passage, "are on the right hand and on the left. Behind the sea of time and space roars and follows swiftly." He was not always willingly obedient to his heavenly monitors. The great struggle of his life was with the temptation to descend to lower levels than those to which his visions and inspirations summoned him. His tempter was Urizen, "the maker of dead laws and blind negations." He has described in a letter to a friend in language of extraordinary imaginative power how at Felpham he met and overcame this temptation to turn aside from his vocation as a revealer of unseen things.

"I labour," he says, "incessantly ; I accomplish but one-half of what I intend because my abstract folly hurries me often away while I am at work, carrying me over mountains and valleys which are not real, into a land of abstraction where spectres of the dead wander. This I endeavour to prevent ; I with my whole might chain myself to the world of duty and reality. But in vain, the faster I bind, the lighter is the ballast ; for I so far from being bound down, take the world with me in my flights, and often it seems lighter than a ball of wool rolled by the wind.....If we fear to do the dictates of our angels.....who can describe the dismal torments of such a state ?.....Though I have been unhappy I am so no longer. I have travelled through perils and darkness not unlike a champion. I have conquered and shall go on conquering. Nothing can withstand the fury of my course among the stars of God and the abysses of the accuser."

But if he was true to his vocation as a seer he was not one of those who deem that such a call sets them free from the claims and the responsibilities of that world that seemed to him "lighter than a ball of wool rolled by the wind." Mrs. Blake testifies in regard to her husband's hands that, except when he was reading or sleeping, she never saw them idle. If the world gave him few of its rewards what it gave sufficed him and, having enough for his wife and for himself, he was content. His "absences in Eden" were the only faults, his wife declared, for which she had ever to blame him. He was able to leave her after his death sufficiently provided for to be above want. He refused an offer of the post of drawing-master to the Royal Family lest it might prove a danger to his art. His recreation chiefly consisted in long walks, sometimes extending to fifty miles in a day. On these expeditions his wife accompanied him. "Together," says his biographer, "they set forth, together they rested and dined at wayside inns, and together they returned under the companionable stars." Nothing could exhaust Blake's extraordinary

physical energy, while his courage and his faith kept his heart always high. He was, says Yeats, "above all things the type of sunny labour." He had little or no sense of humour, as his mystical books bear large witness, but he has something quite different, the sense of joy. "I hate scarce smiles," he says, "I love laughing." Again he says

The angel that presided at my birth,
Said "Little creature, formed for joy and mirth,
Go, love without the help of anything on earth."

Here, finally we have an account of the impression made by him upon one who knew him and who recorded it twenty years after Blake's death :—"In him you saw at once the Maker, the Inventor ; one of the few in any age ; a fitting companion for Dante. He was energy itself and shed around him a kindling influence, an atmosphere of life full of the ideal. He was a man without a mask ; his aim single, his path a straightforwardness, and his wants few. So he was free, noble and happy."

But it is time that we turned to his books, and first to his poems. His earliest volume—the only one that he ever published unillustrated—was issued for him by some friends in the year 1783. The poems contained in it were written by him between the ages of twelve and twenty. Here is what Dr. Richard Garnett says of the contents of this volume :—"They are the most memorable of his works, for they are nothing short of miraculous. For 130 years English poetry had been mainly artificial, the product of conscious effort, ranging down from the superb art of *Paradise Lost* to the prettinesses of Pope's imitators, but seldom or never wearing the aspect of a spontaneous growth. This young obscure engraver was the first to show that it was still possible to sing as the bird sings ; he and no other was the morning star that announced the new day of English poetry." A single specimen is all that can be given here of the contents of this volume which surely gives Blake even more than Chatterton a right to be called

"the marvellous boy." This song is remarkable in the echoes that it brings to us, without the least prejudice to its own distinctive note, from the Elizabethan and Restoration periods.

How sweet I roamed from field to field,
And tasted all the summer's pride,
Till I the Prince of love beheld,
Who in the sunny gleams did glide.

He showed me lilies for my hair,
And blushing roses for my brow ;
And led me through his garden fair,
Where all his golden pleasures grow.

With sweet May dew's my wings were wet,
And Phoebus fired my vocal rage ;
He caught me in his silken net,
And shut me in his golden cage.

He loves to sit and hear me sing,
Then laughing, sports and plays with me,
Then stretches out my golden wing,
And mocks my loss of liberty.

This volume was followed in 1789 by the "Songs of Innocence" and in 1794 by the "Songs of Experience." Blake as a poet is almost exclusively known by those three volumes which had all appeared by the time he had reached the age of 37. The two latter and most of his other works were published by a method peculiar to himself in accordance with which art and poetry were made to permeate each other, so as to produce a single effect. Without the colouring of the pages, the poems, we are told, "are but phantoms of Blake's ideas." They are phantoms which will always charm by their incommunicable naturalness, and as has been remarked, they form "a valuable psychological document as establishing the possibility of a man of genius and passion reaching thirty with the simplicity of a child." "Hardly anything else in literature or art," says Dr. Garnett, "unless some thought in Shakespeare, so powerfully conveys the impression of a pure elemental force, something absolutely spontaneous, innocent of all contact with and all influence from the refinements of culture. . . . Even great artists and inspired poets, suddenly confronted with such unassuming nature, may be supposed

to feel as the disciples must have felt when the Master set the little child among them." In one of the "Songs of Innocence" he describes how he made them.

I plucked a hollow reed,
And I made a rural pen,
And I stained the water clear,
And I wrote my happy songs,
Every child may joy to hear.

Their achievement, which no artifice could ever have or ever has accomplished, lies in this, that, as he says, he was able to "stain the water clear." "The best water," he says elsewhere, "is the newest; the best wine is the oldest." The contents of this volume are cool, crystal water, welling up fresh and unstained, the thought of the heart of a child. They are not the wine of art and of reflection. With the "Songs of Experience" shadows of the prison-house have begun to close upon him. But if there is not in them the ingenuousness, there is still the virility, the nearness to reality, the sympathy with elemental things which characterized the earlier volume and which are characteristic of youth and of sincerity. This is seen for example in the famous poem of "The Tiger":—

Tiger, tiger, burning bright
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry.

.. When the stars threw down their spears
And watered heaven with their tears
Did He smile His work to see?
Did He who made the lamb make thee?

The special characteristics of the "Songs of Experience" and the new mood that they express are indicated in a poem which strikes the keynote of the book and foreshadows the obscurer messages that were to come. It is called "The Angel."

I dreamt a dream. What can it mean?
And that I was a maiden queen,
Guarded by an angel mild;
Witless woe was ne'er beguiled.

And I wept both night and day
 And he wiped my tears away ;
 And I wept both day and night,
 And hid from him my heart's delight.

That represents, we may suppose, the passing of unconscious innocence. He goes on :—

So he took his wings and fled ;
 Then the morn blushed, rosy-red ;
 I dried my tears and armed my fears
 With ten thousand shields and spears.

Soon my angel came again :
 I was armed, he came in vain ;
 For the time of youth was fled,
 And grey hairs were on my head.

I cannot pass from these three books which present to us with fair completeness Blake the poet without quoting one more of his poems,—two verses which, if grammatically faulty, have that in them which goes far beyond grammar.

Ah, sunflower, weary of time,
 Who countest the steps of the sun,
 Seeking after that sweet, golden clime,
 Where the traveller's journey is done,—

Where the youth, pined away with desire,
 And the pale virgin shrouded in snow,
 Arise from their graves and aspire,
 Where my sunflower wishes to go.

It seems to me that in this little poem Blake has shown himself to be, not merely a poet who can sing with the clear, sweet note of a child, but one who has felt in its depths the world old passion of the *homo desideriorum*, of men aspiring, striving, ever unsatisfied. These lines and his quaint little sketch entitled "I want, I want" are worthy to be placed beside Shelley's expressions of the "Desire of the moth for the star." It is indeed deeply interesting to compare these two poets, so closely akin, yet differing from each other so fundamentally,—the one, as R. H. Hutton calls him, "a spirit charioteer of time," "a beautiful but ineffectual angel," suggesting always the transient, the passionate, the vain ; the other, if in a sense equally ineffectual, yet so for very different reasons, a stranger in what he calls this "vegetable world," a pilgrim

of eternity, one to whom, as he says, "heaven opens on all sides her golden gates."

It has been justly claimed for Blake that he more than any other was the morning star of the new day of sincerity and spontaneousness in English poetry which dawned with such splendour at the close of the eighteenth century. He re-opened the wells of inspiration that for more than a century had been sealed. With all the force of his impetuous genius he proclaimed the supremacy of inspiration and denounced all humbler roads by which men seek to travel towards truth. In the singular collection of profound apothegms, which he calls "Proverbs of Hell"—a collection sufficient in itself to refute the charges against the poet of insanity—he again and again declares his belief in the sole preciousness, as against all other means of truth, of the way of direct vision. "The tigers of wrath are wiser than the horses of instruction." "The eagle never lost so much time as when she submitted to learn of the crow." "Improvement makes straight roads, but the crooked roads without improvement are the roads of genius." "When thou seest an eagle, thou seest a portion of genius. Lift up thy head." "No bird soars too high if he soars with his own wings." "Drive your cart and your plough over the bones of the dead." In Blake's complete domination by this conviction which possesses him we see at once the source of his greatness and of his failure. No works were ever so purely improvisations, no roads so entirely "crooked roads without improvement" as were his. He allowed no tampering on his own part or on the part of others with the products of his inspiration. Nor—though he could no more cut himself off from the past and its influence than he could rid himself of his shadow—was he willing to put himself to school to the great men whose heir he truly was. For him the "chaos of memory," as he calls it, is the contrary of inspiration. The Muses are not the daughters of Memory, as the Greeks say.

But not only was Blake the herald of an era of inspiration; he also belonged to a coming age by his sense of the claims of the poor and the oppressed and by the expression that he gives, sometimes with scorn, sometimes with violence, to the demands, of which we are so fully aware to-day, of the social conscience. Like Wordsworth and Coleridge he was captivated by the ideas of the French Revolution and is said to have worn the red cap in the streets of London. Always poor himself he knew the pains and the temptations of a life of poverty. One who was often at his last shilling, but who had so overcome the temptations that must have been almost overwhelming in such a position as to be able to say with perfect sincerity, "I wish to do nothing for profit; I wish to live for art,"—such a man has a right to speak with passion of the wrongs of the poor and the injustices of life. As he wanders in London through "each chartered street" he tells us what he sees :—

How the chimney-sweepers cry
 Every blackening church appals,
 And the hapless soldier's sigh
 Runs in blood down palace walls.

But most through midnight streets I hear
 How the youthful harlot's curse
 Blasts the newborn infant's tear
 And blights with plagues the marriage-hearse.

Again,

The harlot's cry from street to street
 Shall weave old England's winding-sheet;
 The winner's shout, the loser's curse,
 Shall dance before dead England's hearse.

By his humanitarianism—"A Robin Redbreast in a cage
 Puts all heaven in a rage"—and his hatred of war—
 "The soldier armed with sword and gun Palsied strikes
 the summer sun"—Blake belongs to our own age and the
 spirit of to-day could find no more splendid summons than
 the lines that ring out from the midst of the confused

voices of his prophetic works with the call of a silver trumpet :—

Bring me my bow of burning gold,
Bring me my arrows of desire ;
Bring me my spear : O clouds unfold ;
Bring me my chariot of fire.

I will not cease from mental fight,
Nor shall my sword sleep in my hand,
Till we have built Jerusalem
In England's green and pleasant land.

It is a question on which I shall not venture to pronounce, whether Blake was greater as a poet or as a painter. The two aspects are indeed so closely related that each illustrates the character of the other and neither should be dealt with apart from the other. This is not only the case because, as Dr. Garnett has said, "they are the offspring of the same creative impulse," but also because by the process that he adopted for their production they are fused together indissolubly. When Blake was perplexed as to how to procure the means to pay for the publication of his poem, in a dream, he tells us, his brother's spirit revealed to him the process by which the poem and the design which illustrated it could be reproduced together in facsimile and sold not merely as a poem but as a painting. At the time half a crown was all the capital he and his wife possessed between them, and of that sum one and tenpence was spent in providing the materials required. Here is how the method is described : "The verse was written and the designs and marginal embellishments outlined on copper with an impervious liquid . . . Then all the white parts or lights, the remainder of the plate, that is, were eaten away with aqua fortis or other acid, so that the outline of letter or design was left prominent as in stereotype. From these plates he printed off in any tint, yellow, brown, blue, required to be the prevailing or ground colour in his facsimiles : red he used for the letterpress. The page was then coloured up by hand in imitation of the original drawing with more or less variety of details in the local

hues He taught Mrs. Blake to take off the impressions with care and delicacy, which such plates signally needed, and also to help in tinting them from his drawings with right artistic feeling : in all of which tasks she, to her honour, much delighted The pages were done up in boards by Mrs. Blake's hand so that the poet and his wife did everything in making the book Except manufacturing the paper Never before was a man so literally the author of his own book." * The price of the two sets of "Songs of Innocence and Experience" when issued together was from 30 shillings to two guineas. During the poet's lifetime the price went up to five guineas, while late in his life generous friends, such as the distinguished artist, Sir Thomas Lawrence, commissioned him to make sets tinted by himself at from ten to twenty guineas. For some of his volumes the market value at present, we are assured, is not less than £1,000.

The opinion upon a question of art of one who has not had an artistic training is always of questionable value, and in the case of Blake's works there is the additional difficulty that one has to judge of them mainly from uncoloured reproductions and these, those who have examined the originals inform us, "are but shadows of the artist's thought." Dante Rossetti speaks of how his pictures are "softened by the sweet, liquid, rainbow tints of the coloured copies into mysterious brilliancy." "Turning over the leaves" of one of his books, says his biographer, Gilchrist, "it is sometimes like an increase of daylight on the retina, so fair and open is the effect of particular pages." The work by which one who is not able to study the coloured copies which are in the British Museum and in the possession of Lord Crew and other collectors can best judge of his genius in his illustrations of the book of Job. His powers, which were apt to dissipate themselves in the fantastic humours of his imagination,

are controlled by the ideas that are here presented to them. At the same time these ideas are peculiarly suited to his genius and such as especially appealed to him because he apparently read into Job's history much of his own personal experience. No one can look, for example, at any reproduction of "When the Morning Stars sang together" without experiencing a sense of enlargement and of joy such as is fitting when we are spectators at the creation of a new world. Rossetti points out that "the effect of sublimity and multitude is centupled . . . by adding the upraised hands of two other angels to right and left passing out of the composition." It is a very daring artist who will attempt to convey in outward form any suggestion of the Almighty, but we may say that here and elsewhere Blake has at least succeeded in presenting an extraordinarily impressive figure. The same sense of power is seen in his picture of the "Ancient of Days setting a compass to the earth."

No one can look through the reproductions of Blake's pictures without being deeply impressed—amid much that is merely grotesque with his success in rendering for us the conception of power in God and of the wind-swept spaces of eternity. Much, no doubt, of his draughtsmanship is faulty. He did not work sufficiently with his eye upon the object and trusted too much to his own vivid imaginations as his models. But in such an engraving as "Death's Door" and in many another the great facts of Time and Eternity, of Death and Immortality, are presented with a breadth and a simplicity which only genius can achieve. Perhaps what his pictures suggest most of all is, what was most of all characteristic of his own mind and imagination, the feeling of energy, of power in the universe. We see it in the swift lines of his moving figures, in, for example, such a picture as his "Reunion of Soul and Body," and in other forms that flash across his pages "drinking the wind of their own speed." It may be that Ellis and Yeats are too enthusiastic in their appraisal when they say

that "to find any other group of designs that will bear to be considered in the same mood of mind which is aroused by the artistic contemplation of the Job illustrations we must go to the Sistine Chapel at Rome or to the Raphael Room at South Kensington. As a series they may fairly be compared with Michael Angelo's frescoes and his only." Ruskin's more cool appreciation declares him to be "the only man of power equal to Dore's, whom we have had lately among us." His technique is, no doubt, often faulty and his imagination grotesque. But "the play, the insight and the stretch"—these things belong to Raphael and to him.

There remains still for our consideration what many consider the most important aspect of the man—Blake the mystic. Certainly this aspect governs in many respects the other two. Round this also has centred the controversy as to whether he was really sane or not. This is, however, so much a relative question for us all and we so often call a man mad simply when he transcends our ordinary standards, that in the case of one so obviously exceptional in his gifts as Blake it is best not to attempt to label him. Much in him that startles the ordinary common-sense man is quite explicable on the understanding that this was a man of extraordinary imaginative power and at the same time exceptionally responsive to spiritual influences. He is not to be judged insane merely because he seems so to what William James calls "your robust Philistine type of nervous system, forever offering its biceps to be felt, thumping its breast and thanking Heaven that it hasn't a single morbid fibre in its constitution." At the same time no one can call Blake neurotic or morbid and I fancy his biceps was in as excellent condition as that of any Goliath of the Philistines. Fifty-mile walks and a temperament that "loves laughing" are fair guarantees of healthy-mindedness. One thinks of a visionary as a man whose head is ever in the clouds and whose feet are always

stumbling over every stone of earth.* But Blake was not such. He was no cloistered spirit, nor was he morbidly conscious of his gift. He believed it was something anyone might possess and that everyone ought to possess, "When he said 'my visions,'" says a very level-headed observer, "it was in the ordinary, unemphatic tone in which we speak of everyday matters. In the same tone he said repeatedly 'The spirit told me.'" "'I was Socrates,' he said, and then, as if correcting himself, 'a sort of brother.' I must have had conversations with him. So I had with Jesus Christ." Then when his matter-of-fact friend expostulated with him, he added, "to be sure it is impossible. We are all co-existent with God, members of the divine body. We are all partakers of the divine nature." We at once jump to the conclusion that Blake believed in transmigration, but that is not in the least what was in his mind. It is that the ideas of Socrates and of Christ are so real to him and their personalities so vivid that he projects himself into their very presence and speaks with them. He is their contemporary in God, that is, in the real world of ideas. When he was asked where he had seen one of those strange sights that were so real to him he replied "Here," touching his forehead. "Abstract beauty is for Plato," says William James, "a perfectly definite individual being," and so it might have been for Blake. He was a man in whom ideas had the force of sensations and who, as Swedenborg said of himself, was "intromitted into the spiritual world."

He habitually met and conversed with Moses and the prophets, Homer, Dante and Milton,—“all,” he said, “majestic shadows, gray but luminous and superior to the common height of men.” If that is not what these spirits are, it is what they ought to be. A ghost was understood by him to be a thing seen by the gross, bodily eye, a vision something seen by the mental eye. He had only once seen a ghost, “scaly-speckled, very awful,” and never wanted to see another. “Where Dante saw devils,” he said, “I

see none." Evidently his power of visualizing was much greater in the case of ideas of good than in the case of ideas of evil. Of one of his mystical books he says, "I may praise it since I dare not pretend to be any other than the Secretary; the authors are in eternity." When he drew his visions it was evident, we are told, that a real image was before him.

Here is his own statement of what he conceived to be his mission when he wrote to dictation his mystical books, "Jerusalem," "Milton," "Vala" and the rest.

I rest not from my great task
To open the eternal worlds, to open the immortal eyes
Of man inwards into the worlds of thought,—into eternity,
Ever expanding in the bosom of God, the Human Imagination.

Again he says, "I know of no other Christianity and no other Gospel than the liberty both of body and mind to exercise the divine arts of Imagination,—Imagination, the real and eternal World of which this Vegetable Universe is but a faint shadow, and in which we shall live in our eternal or Imaginative bodies when these Vegetable, mortal bodies are no more." Again "O ye religious, discountenance everyone who shall pretend to despise Art and Science. I call upon you in the name of Jesus. Is the Holy Ghost any other than an intellectual fountain? Can you think at all and not pronounce heartily that to labour in knowledge is to build up Jerusalem and to despise knowledge is to despise Jerusalem and her builder."

It is quite evident from these passages that to understand Blake we must learn his language,—that to him imagination, intellect, knowledge, have a different connotation from what these words have in our common usage.

A tear is an intellectual thing,
And a sigh is the sword of an angel king,
And the bitter groan of a martyr's woe,
Is an arrow from the Almighty's bow.

By intellectual he evidently means what we usually call spiritual. We notice at the same time that Urizen, said to be the greatest dramatic figure in these books, the

“God of this world,” who is reason, is the enemy of good because he is the enemy of inspiration and imagination. It is he who creates those “laws of prudence,” “to preserve the self-hoods or spectres” and calls them “laws of God.” Imagination, which is “the bosom of God,” reveals realities. Here we are among the plain truths of every seer and inspired poet. Blake like them knows how—

To see a world in a grain of sand
And heaven in a world flower,
To hold infinity in the palm of his hand
And eternity in an hour.

Wordsworth and Tennyson and Boehme who “colloquised with the daisies on such themes” would find nothing strange in such a claim. “I assert for myself,” he says, “that I do not behold the outward creation and that for me it is a hindrance and not action. ‘What,’ it will be questioned, ‘when the sun rises do you not see a round disc of fire somewhat like a guinea?’ O no, no, I see an innumerable company of the heavenly host crying ‘Holy, holy, holy, is the Lord God Almighty.’ I question not my corporeal eye any more than I would question a window concerning a sight. I look through it and not with it.”

It is Blake’s symbolism that sometimes repels us in these books and that makes them so difficult to us. And yet all great men of high visionary power seem to have found in symbols the necessary materials with which to work. Dante is scarcely less difficult in this respect in some parts of his poem than is Blake. This is, however, in both cases what Blake himself calls in speaking of Swedenborg “the linen clothes folded up,”—not what is precious and enduring. That on the contrary is his continual occupation with eternal truths and his extraordinarily vivid realization of them—a realization so vivid that the things of time seem beside them spectres of unreality. Time at its best is, as he says, “the mercy of eternity.” The only reality is that which is within. “The created

universe," Swedenborg says, and Blake would have repeated, "is man in an image." It is the Purusha, as Hindu philosophers would say : his head the sun, his heart the moon, his feet the earth, his loins the stars. "Distance is but a phantasy."

Every space larger than a red globule of man's blood
Is visionary;
And every space smaller than a globule of man's blood
Opens into eternity.

Again "All things are comprehended in their eternal forms in the divine body of the Saviour, the true vine of eternity, the Human imagination."

There is much more that might be said of this strange but very noble and impressive figure. In every part of his work he is seeking to discharge the same task—whether as poet or artist or prophet—transmitting great and stimulating suggestions of a world so real and near to him that, as he said, he touched the heavens with his stick. He is seeking to give back to man a universe he has lost and losing which he has shrunk from an eternal spirit to be what he calls, "a worm of sixty winters."

NICOL MACNICOL.

Poona.

SOME TOURS IN SIKHIM.

BY LIEUTENANT-COLONEL W. J. BUCHANAN,
C.I.E., I.M.S.

(Continued from page 55.)

III. THE TOUR TO PHALUT AND THROUGH SIKHIM.

THIS is perhaps the finest tour in Sikhim, it is certainly the most popular. On this journey the traveller sees, in clear weather not only the whole Kinchenjunga range, but also the great Everest group.

If time is very limited these great snow ranges can be seen from Sandakphu, two days march from Darjeeling and two days back, but the traveller by so doing will lose much of interest; and we recommend the tour to Phalut and thence through Sikhim to Pemiongchi, Kewsing, Temi, Rungpo, the Tcesta valley, and back by Pashoke to Darjeeling and this circular tour we now propose to describe.

If the coolies and heavy baggage are sent off the day before the travellers should reach Tonglu on the first day (about eight hours march).

Starting early we ride over Jalapahar to Ghoom bazar, where we join the good Cart Road to Samana. This road runs through beautiful forest, past the wonderful vertical rock (a favourite picnic place) known as Ghoom Rock, till $7\frac{1}{2}$ miles from Jor Bungalow bazar (Ghoom) we reach the busy village of Sukiapokri.* Here we have a choice of roads, we may continue along the Cart Road for a couple of miles to *Samana Busti* and then descend by a very steep but good road to *Manibanjan*, or we may keep to the right and follow a forest contour-path down to the same place. The forest road is fairly good, it is

* The *Jorpokri* bungalow is about a mile and a half beyond *Sukiapokri*, up in the forest, altitude 7,400 feet (three rooms and seven beds).

very rough in places, but in 1½ hours from Sukiapokri it lands us at Manibanjan, certainly sooner than by the Samana Road.

From Manibanjan there is a very steep zigzag up to the next milepost, 13th (16 from Darjeeling) near an open clearing in the forest and a few huts. There is another steep ascent during the 16th mile and near the 17th the road passes over a narrow open ridge. Soon Boundary Pillar 18 is reached and in a quarter of an hour the bungalow at Tonglu (altitude 10,074 feet, three rooms and seven beds), 22 miles from Darjeeling.

From Tonglu on a clear day a fine view is obtained of Darjeeling and the neighbouring hills, the whole Kinchenjunga and Chola ranges. Over the Jelap La in the Far East the white peak of a great mountain is seen, Chumolarhi (23,940 feet), in Tibet.

The next day's march is to Sandakphu, 14 miles, and the steep ascents and descents make it a difficult march. The road winds up and down, first through forest and over open spaces, passing a tiny village at the 19th milepost. Soon after passing the 20th milepost we see the Sandakphu hill easily recognised by its three rocky knolls and just to its left (N.-W.) we get our first glimpse of the Everest group, while on the right, due North, we can still see the Kinchenjunga range. Near the 21st milepost the road runs in a tedious fashion through bamboo groves, the descent then get steeper, we pass a bit of the road cut out of the cliff and protected by a railing. The 22nd milepost still finds us in the somewhat monotonous bamboo glades. Then follows a steep ascent and a steep descent till near the 24th milepost we reach another *banjan* * or neck followed as usual by a steep ascent lasting 25 minutes up to a small ridge near Boundary Pillar 14. A few years ago the side of this hill was black and bare, due to a great forest fire, now it is covered thickly with young

* *Banjan* or *Bhanjan* means a hollow or depression in the ridge of a mountain chain
a small pass (La) = Alpine, Col.

bamboos. The next two miles consist of two ascents and descents ; over another *banjan*, then up and down again till we reach a small village with a black pond (Kalapokri), 4½ hours' march from Tonglu, and about five miles from Sandakphu. There is a steep ascent, 30 minutes, from this village up to a bare top, where we see signposts indicating the path to Pulbazar (on the Little Rungeet river below) and to Tonglu and Sandakphu.

A walk down of 20 minutes brings us another *banjan* and 15 minutes later we reach the 31st milepost. Then comes another descent and a final climb up a narrow rough and somewhat dangerous road to the bungalow at Sandakphu (Alt. 11,929 feet, three rooms and six beds), 32½ miles from Jor Bungalow, 35½ miles from Darjeeling.

The bungalow is comfortable and has a closed-in verandah. The minimum temperature was 37° F. on 4th October. In the middle of April, six years ago, the writer and a friend were, literally, snowed up here, for 48 hours.

The view from Sandakphu, on a clear morning, is unique, indeed one of the finest in the world. From a knoll behind the bungalow we see the whole Mount Everest group, the whole Kinchenjunga range and far away to the East the Tibet passes, Gipmochi and the lower hills of Bhotan. Below us are the sunny valleys of Nepal and on the North the deep valleys of Darjeeling District. It is a glorious view on a clear day at any time of the year, but it is absolutely superb in April and May when, literally for miles, the whole mountain side is ablaze with white and pink rhododendrons. (For the views of the snows see above, p. 37.)

If the traveller can go no further he may be well content, he will not be likely to get a grander view anywhere in Sikkim.

From Sandakphu the next day's journey is to Phalut (Faloot)—12½ miles—an easier journey than that of the previous day. After a short descent the way lies over fairly

level grassy slopes, mostly bare of trees. In 15 minutes the 33rd milepost is reached. The view is grand—Everest on the North-West, Kinchenjunga to the North. After half an hour's march the road descends through splendid Alpine glades of firs, pines and rhododendrons, then we pass a grassy knoll thinly covered with blasted or dead pines. The 35th mile runs through pine forests; at the 37th mile we see the great damage done by a storm which swept across the face of the hill levelling all before it in a narrow track of about 50 yards. Then more ups and downs of the road, till beyond the 38th milepost it dips to a broad *banjan*, the hills being dotted with blasted pine trees. Then follows an ascent of 40 minutes up to the bare top of a hill marked by signposts (near 41st milepost). From here we can see the Phalut Bungalow at the top of a steep zigzag, still however $4\frac{1}{2}$ miles away, and to be reached by a steep descent with a fenced road cut out of the cliff, then up and then down again till we reach the foot of the zigzags leading to the bungalow, the last ascent taking about 20 minutes to ride up. Phalut Bungalow (altitude 11,811 feet, three rooms and seven beds) is $12\frac{1}{2}$ miles from Sandakphu, the 46th milepost being half a mile beyond the bungalow. The journey takes about five hours. The minimum temperature on 5th October was 38° F.

The views from Phalut are practically the same as from Sandakphu. There is a fine *Mendong* about 500 yards beyond the Bungalow, and Boundary Pillar No. 1, "where three kingdoms meet"—Nepal, Sikhim and British Darjeeling. From the grassy slope on which the *Mendong* is built are obtained splendid views of the great snow ranges (Everest and Kinchenjunga) and of the deep valleys of Nepal. Mount Singalela stands up a black mass right across our path.

Next day we start for Dentam in the Sikhim valley of the Kulhait river. The road runs past the *Mendong* and down and across *banjans* till in an hour and three-quarters we reach the foot of the road over the top of

Mount Singalela. The coolies started off in great spirits to the enlivening strains of their Sirdar's tin whistle, some carrying bamboos with bits of cloth and paper attached to be planted at the *Dubong*, or cairn at the top. As we ride up the short and stony zigzags to the top of the mountain (they are not so formidable as they look from below) we catch several glimpses of the Everest group. We pass the 48th milepost quite near the top and the cairn is reached in 30 minutes' ride from below. The cairn stands on the narrow top of the hill (12,161 feet), the highest point reached in this tour. The hilltop is covered with coarse grass and yellow flowers. Our coolies duly plant their prayer flags on the cairn, throw handfuls of rice on it and mutter, to us incoherent, charms.

The view is glorious. The Everest group away to the North-West, due North in front of us the dazzling white brilliance of Kinchenjunga and her compeers. We have before us the first, the third and the fourth highest mountains in the world.

The descent from the top of Singalela is steep and rough. As we go down we still get glimpses of the Everest group. We pass through jungles of rhododendrons and bare dead pines, we march along a grassy slope, out of which project remarkable huge vertical rock masses, go round a corner and down over rough road, here clay and here "courderoyed;" we pass the 50th milepost in a steep and stony descent, then we cross over several wooded knolls till we reach milepost 51, and five minutes later the open grassy ridge of Chiabunjan, the main pass between Eastern Nepal and Western Sikkim. There are the ruins of a stone bungalow close by, which might with advantage be put in good repair.

From Chiabunjan Pass the road due North is the one which is used by those who wish to get to Jongri (13,140 feet) and to the great Guicha La. There are, however, no more bungalows and tents must be taken. Our tour is more modest, we pass the ruined bungalow, turn our backs

on Everest and on the Nepal Boundary Road and plunge down through the forest towards the Kulhait valley. Chhabunjan is $6\frac{1}{2}$ miles from Phalut, we still have 11 more to go.

The way down is steep, often very rocky and more like the bed of a torrent than a road. In places it is easier going as it is strewn with fallen bamboo leaves. In about half an hour we reach some seats on a high spur, and near by a milestone labelled "65" (see below). Twenty minutes later we come on a small bridge, the road continues down and down till near milepost 63 we halt for lunch by the side of a small stream. From here in 15 minutes we meet a third bridge, where two valleys meet; a mile further on we come to an open hollow with another *Mendong* (or *Mani*) and pass milepost 61, before we turn round a big hill, from which commences a wearisome succession of steep zigzags down to the bed of the Kulhait river, having reached which we then pass over a large boulder-strewn talus, where a smaller stream joins the Kulhait (near milepost 59). From this talus to the bungalow is a ride of about 40 minutes up and down and along the river bank, with a final sharp rise to the pretty red-roofed bungalow of Dentam (altitude 4,500 feet, 3 rooms and 4 beds). The 58th milepost is near the bungalow and half a mile beyond is a village where rice, eggs and fowls are generally obtainable.

The Kulhait river is an affluent of the Great Rungeet and its valley has been described by Hooker as one of the finest in Sikhim. Its length is 16 miles, it is inhabited in many places, chiefly on the long spurs; elsewhere the flanks of the valley are very steep, the hills rising to 7,000 or 8,000 feet. "These spurs with comparatively flat tops at about the same level suggest some leveling cause." (See Hooker, *H. J.*, Ch. XII.)

From Dentam the traveller may proceed to Richinpong, 10 miles, and thence to Chakoong, 11 miles, and to Darjeeling, 20 more. We prefer to go on to Pemiongchi

(10 miles). As we leave the bungalow we see Gipmochi and the Eastern passes, but there is no view of the snows to the North-West or North.

We descend directly to the river, cross a bridge and follow a slowly rising road along the North flank of the valley. In about 40 minutes we pass a fine waterfall. Three-quarters of an hour later we reach 55 milepost. Up the road goes till round a corner we see a fine pair of lofty waterfalls. The road rises above these falls to the top of a hill from which we can look backwards and see the Phalut ridge. Soon we catch sight of Pemiongchi monastery, perched high on a wooded spur. The road runs along the top of this ridge, or rather over a succession of ridges, till near the milepost 49 there is a steep and rough descent, through fine forest, till we come to a small *banjan*, and from there in 10 minutes' ride up hill we reach the Pemiongchi Bungalow (altitude 6,920 feet, 3 rooms and 4 beds). Before this we should have mentioned that we see perched on another spur, a large monastery, that of Changa¹chellung. The view from Pemiongchi of the Kinchenjunga range is very fine, from Kang Peak to Narsing. Kabru is in the centre and splendidly magnificent, a black ridge opposite us hides much of Kinchenjunga. The sunrise at 5-20 a.m. was particularly fine. The monastery, one of the largest in Sikhim, well deserves a visit.*

Reluctantly turning our backs on this grand scene next morning we start for Kewsing, across the valley below. In less than half an hour we reach the village of Geysing (or Kaysing), celebrated for its great *Mendong* which runs down hill for 200 yards. The description given by Hooker (*Himalayan Journals*, Ch. XII) written over 60 years ago, is as accurate as if written to-day. The *Mendong* is 200 yards long, about 10 feet high and 6 or 8 feet broad and runs like a huge wall adown the hill. It is built of flat slaty stones, both sides covered with

* This monastery has been frequently described, e.g., by Hooker; by Waddell (*Buddhism of Tibet*) and by Freshfield, *Round Kanchenjunga*.

some 700 inscribed stones, chiefly the well-known prayer
"Om Mane Padme Hum."

At the end stands a tall (9 feet) monolith with a couple of large *chaitis* or *chortens* (Buddhist cenotaphs).

Duly keeping the Great Mendong on our right we go down the hill seeing in front (North-West) the top of Phalut and Singalela at the head of the Kulhait valley. In half an hour we reach the river, near the junction of the Kulhait with the Great Rungeet. The bridge is a fine suspension one, about 140 feet long. Crossing the bridge the road ascends rapidly on the other side of the valley; it is hot, but the road is shady. As we ascend we catch glimpses of the snows to the North and finally reach the pretty bungalow of Kewsing (altitude 6,000 feet, 3 rooms and 4 beds), a few hundred yards beyond a small village. Kewsing is but 10 miles from Pemiongchi, but the ride up from the river takes us well over 2 hours with halts.

The views from Kewsing are good. We can see Pemiongchi and Changachellung monasteries to the North-West. The great snow peaks are well seen; Narsing is so near that it commands the scene. Jubonu and Pandim look fine, but Kinchenjunga is partly hidden by a black ridge. Kabru and Kang peaks are clear and distinct. Janu lies behind Kabru.

No less than seven important monasteries are seen, perched on solitary peaks, in this holy valley. Pemiongchi, Changachellung, Raklang, and the great monastery which is built on the conical wooded hill of Tassiding (just in front of us, which rises abruptly from a fork of the deep river gorge), the oldest monastery in Sikhim. To the North beyond Tassiding three other Gumpas are seen, Doobdee, Sunnook and Dholing.

From Kewsing the road to Temi is but 10 miles. We start up hill, riding through enchanted forest with splendid timber, now glancing at the snow peaks to the North, now at the wonders of the forest, anon watching the rocky path beneath our feet. At the top of the hill, about one hour

from Kewsing, we get another grand view, Janu is hidden, Kabru is very fine, Narsing is in the centre, and due North we see the white pointed peak of Siniolchum. The others (Kinchenjunga, Pandim and Jubonu) appear from this spot a huge mass not easily differentiated. To the East we see Gipmochi and the Tibet passes.

Between Pandim and Narsing we note a huge clay coloured moraine reaching up to a huge névé. Leeches* were troublesome on the road, and while we admire the scenery our syces are busy removing these pests from their own and the horses' legs.

We descend on the sunny Eastern side of the hill catching views of Darjeeling and of the Nepal Boundary ridge. Then follows a steep descent to an open dell and 15 minutes later we reach the cross roads at Damthong, from which point we have already described the way to Temi and to Rungpo (Temi, Rungpo, Teesta Bridge, Pashoke and Darjeeling, *vide* p. 49 above).

IV. THE CIRCULAR TOUR TO THE TIBET PASSES.

The next tour to be described to the *Gates of Tibet* is one of the most interesting. It can be done within the limits of a fortnight's leave from Calcutta. †

In view of the importance in recent years of the China-Tibetan question this journey becomes additionally interesting. The route over the Jalap, thence to Darjeeling and Calcutta and by sea to China is now the quickest way to get from Lhasa to Peking. As to the best time of year, it must be remembered that the rainfall is heavy both at

* W. S. Sherwill (Journal A. S. B., Vol. XXII., p. 553, of 1853) gave a good account of the Sikkim leeches. "A small black species, as thin as a needle and from 1 to 2 inches in length. They are first met with at 4,000 feet elevation, and increase in numbers with the altitude till near 8,000 feet they swarm in myriads, every leaf, bush and stone being covered with these annelides. From 8,000 to near 10,000 feet there is a hiatus, but over 10,000 feet another species is found, of a snuff brown colour, with a white stripe on each side of the body. It is not so blood thirsty as the black variety." "They fall on the passer-by from leaves of trees" or rapidly attach themselves to clothes or boots or bare feet. They show their greatest activity in breaks in the rainy season.

† *Itinerary.* To Gantok in 3 days; then Changu 20 miles; Nathu La and Kapup (say) 14 miles; Kapup to Jelap La and back and on to Gnatong 10 miles march; to Sedonchen 9 miles; to Ari 12 miles; to Pedong 8 miles; to Ka'impong 12 miles; to Pashoke (by short cuts 10 miles) by Cart Road 13 miles; to Darjeeling 17 miles; *i.e.*, 12 marches.

Gantok and at Gnatong. The best time for the tour is therefore either early in May or early in October, later on in October snow will surely be met with on the passes or in the Kapup valley.

It will be remembered that in 1903-4 Sir Ranald Macdonald led a large force of troops accompanying General Younghusband's Mission over these lofty passes and on to Lhasa, a military feat which has put in the shade the historic crossings of the Alps by Hannibal and by Napoleon.

On this wonderful expedition, which reached Lhasa on 4th August 1904, there have been many books written, but the descriptions of the difficulties of the roads up to these passes in these books do not *now* apply; the roads (especially that of the Yaglap La) have been greatly improved by the P.W.D. of Bengal.

Let us however start. The way to Gantok has been fully described above; from Gantok a good road leads uphill for some five miles on the way, from thence the road is less good. It lies through primæval forest, about the 8th mile the path is narrow and high, cut out of the cliff and fenced on the *khud* side. Indeed the road continues to be bad and steep, till beyond the 9th mile, we see the bungalow of Karponang, perched on a steep hillside (altitude 9,500 feet, 3 rooms and 4 beds). If time is not important the travellers may halt here, but it is quite possible to get to Changu in one day from Gantok (over 20 miles). From Karponang the road is up hill, and is rough and steep. The 10th mile-post is passed in about 10 minutes after leaving Karponang. We go up and then down, we pass a fine waterfall and a huge horseshoe bend of the road, then zigzag up through blasted and dead pine trees. At the 11th mile another bit of rock-cut road meets us, and near the 12th milepost we meet the old road over the Yaglap Pass. We pass another waterfall, turn round a corner and enter the Changu valley. As we turn this corner, behind us we may still see Karponang. In about 20 minutes' fair going from this corner we come upon the remains of an old Camp (a relic

of the 1903-4 expedition). Before we meet the 14th mile-post the valley divides; we keep up the main valley, seen to be closed at the top and over which water is seen to flow. We zigzag up the flank of this long and wild valley, passing flocks of yaks grazing amid the rocks; on and up we go till we reach the end of the valley and suddenly there bursts upon us the sight of a splendid lake and at its further end a small bungalow, our destination for the day, Changu Bungalow (altitude 12,600 feet, 2 rooms and 4 beds). The road to the bungalow runs along the left side of this lake, which is a large one, about 1 mile long and about 600 yards broad. On the side opposite from the road it is bounded by a lofty hill, covered with dwarf rhododendrons, and those who have seen it in its glory in May say that it surpasses even Sandakphu in the beauty of the rhododendron flowers.

The bungalow is cold, and a bit draughty, and is built of wood.

If at this point it is desired to visit the Yak Pass, the path lies over the hill behind and above the Changu Bungalow, then through a long valley to the foot of the ascent. It can be done and back in one day from Changu.

To get however to the more famous passes we climb the hill amid rhododendrons to its top, 20 minutes from the bungalow. Here fine views of the snowy peaks can be got. We then pass along a bare grassy slope with, it may be, some tents of yak herdsman, then the path winds round a huge open amphitheatre (taking 40 minutes to get round) till we turn a corner, and before us lies an enormous deep wooded gorge leading up to the foot of the Nathu Pass, the road to which can be seen winding in zigzags to the top.

Keeping along the north side of this great gorge for a couple of miles over a tolerable road we at last descend, for a few minutes, to a beautiful little lake (altitude 12,400 feet, two hours from Changu). This spot is sometimes called *Sharab*.

The path from this lake to the top of the Nathu La is not really difficult. We first climb up to a huge rock which marks the path leading on to the huge traverse known as the Kapup valley. We pass this big rock and follow a rough path straight up the hill, while our baggage coolies strike off at once across the huge depression leading to the Kapup valley. There are the remains of a longer and good cart road up to the pass; it is now broken and blocked with rocks, but it could easily be repaired.

The short cut, however, is not bad for either walking or riding. Half way up we come to another huge depression, with a couple of dark forbidding lakes or tarns. We note the giant rhubarb (*R. Nobile*) growing amid the rocks; we may probably see a marmot darting in and out of the stones. Above, the road becomes narrow and some projecting rocks make it a bit unpleasant; these however are soon passed, and the way to the top is clear and easy (one hour from the small lake below including short halts).

On our visits to the Nathu Pass, early in October, on two occasions we were favoured by fine clear weather, indeed we had been on the top for some time before the fresh cold breeze reminded us that we were standing "in shirt sleeves" at 14,400 feet altitude.

The view is superb; behind us lie the hills and valleys down to the plains which

*"Gleam like a praying carpet at the foot
Of these divinest altars."* *

In front, Tibet and the Chumbi valley, with Phari Fort in the distance, and rising magnificently behind it the great Sacred Mountain of Tibet, Chumolarhi (23,940 feet). In the foreground below our feet a road similar to that we had come up winded down and down to the Chumbi valley and the Mo Chu.

The grand valley of Chumbi had been rarely visited by Europeans, previous to the expeditions of 1888-90 and of 1904. In the eighteenth century Warren Hastings'

* *Light of Asia.*

emissaries, Bogle in 1773 and Turner in 1783, had passed through it *en route* to Lhasa.

There have been many who urged that at the close of the Lhasa Expedition of 1904 this fine valley should have been acquired by the Government of India. Its rainfall is far less than that of Sikkim and of Darjeeling. The summer climate is good and from many points of view it would make a fine summer Sanatorium.

The great river of Chumbi, the Mo (or Ammo) Chu (Hooker's Mochu), runs down through Bhotan, becomes the Torsha river in Bengal, and finally joins the Brahmaputra.

Having been unable to obtain passes to enter Tibet we perforce had to return and descended the hill in 35 minutes, till we struck a path which led us into the long traverse between the Nathu and Jelap passes—the Kapup valley.* There is no road in this broad valley, though the State Engineer has outlined one. We steer for a stream which is seen to wind through the centre. We struggle alongside this, now in black sticky mud, now in the stream itself, making for some huts seen at the end of this valley. We reach these in about an hour, and from there descend a deep wooded gorge, which crosses the Kapup, traverse right angles, catching a glimpse of a fine lake † on the right. We clamber and stumble down the sides of this rough gorge, cross the stream over a couple of logs and toil painfully up the other side, till we meet another smaller gorge entering the large one at right angles. We keep on up the

* This is the "open marshy plain, chiefly of peat moss" described by W. T. Blanford in his journey in 1870. See J. A. S. B., Vol. XL., pt. 2 for 1871, p. 369, etc.

† We did not catch another glimpse of this fine lake. It is almost certainly the Nemi Tso, mentioned by Blanford (*loc. cit.*). This lake and several others in the region of the Chola range were picturesquely described by the late Sir Richard Temple, G.C.S.I. (*Proc. of Royal Geographical Society*, Vol. III., new series 1881). Sir Richard's article is illustrated by sketches. He omits to mention the fine Changu Lake 20 miles beyond Gantok. I am not sure that Sir Richard Temple's description of the lakes and the pass he calls the Yak La does not refer to the Nathu La. The name Nathu (or Gnathu La) is not mentioned by Temple, in his text or on his excellent Map, and the description of the ascent to the pass he calls the Yak La with a lake at the foot and two others half way up is exactly what we find on the Nathu ascent. Curiously also Blanford twice refers to a small lake at the foot of the Jelap La, there is none there, but the description otherwise corresponds to the one at the foot of the Nathu. The Bidentzo is about one mile from the foot of the ascent to the Jelap and it is separately and well described by Blanford. The only lake close by the Jelap is one on the Tibet side and this is shown in Temple's Map (*loc. cit.*).

left side of this small gorge, till we cross it and reach more level land. The way is still rough and stony, but soon we see the white road leading from the Kapup Bungalow to the Jelap, with the familiar telegraph wire to our isolated garrison at Gyantse in Tibet, and we soon reach the small and new bungalow of Kapup (altitude 13,000 feet, 2 rooms and 2 beds only, minimum temperature on 1st October 37° F.) A good road or path would make this defile easily crossed ; it took us 2½ hours on one occasion, and nearly 4 hours on another to get through it, though it cannot be more than 4 miles long. A party which followed us in 1911, ten days later, were badly caught in a snow blizzard and much delayed.

To visit the Jelap La the best plan is to halt at Kapup Bungalow for the night, in spite of the 2 beds only, going up to the pass in the early morning, and returning to Kapup for breakfast, having sent on the coolies and heavy baggage direct to Gnatong (6 miles).

For the first half mile or so the road to the Jelap is good, the real ascent begins at some rocky zigzags up to the first ridge. It is steep but not seriously so, and one should reach the cairn at the top in about one hour from Kapup. The top of the pass is level and larger than that at the Nathu ; big bare lofty rocks tower up on either side. The pass is reckoned as 14,390 feet altitude, or about the same as the Nathu La. The view is much the same as that from the neighbouring Nathu ; Chumolarhi Mountain, Phari and several Chumbi villages are seen. At our feet the road winds down to the valley and a little lake lies some hundred feet below us. The grand snowy mass of Chumolarhi, with its sugarloaf-like great peak rising high above, is well worth watching. Beyond it are the great lofty plains of once unknown Tibet.

An hour's walk brings us back to Kapup Bungalow and breakfast. After breakfast we examined the fine glacial lake, the Bidentzo, already described (12,700 feet) (p. 41 above). Then turning our backs on the great pass

we ride steadily up the path to the top of the Nim La (about 13,000 feet), from which again we descend across a broad open valley, mostly bare of trees, till we come to the ascent to the Taku La, the pass of the fight with the Tibetans in September 1888. No remains can now be seen of the once famous wall built by the Tibetan invaders the night before the battle and their defeat and flight. Having reached this pass, over 13,300 feet, we realize how absolutely it commands Gnatong in the hollow saucerlike depression, a thousand feet below. We descend this steep hillside, called the "Derby Downs" after the Derbyshire Regiment which helped to drive the Tibetan invaders from the pass above. It takes a good 45 minutes' walk to reach the stream at the foot, from which a short steep path leads up to Gnatong and its bungalow (altitude 12,300 feet, 3 rooms and 4 beds).

Gnatong *fait*, its glory has departed, it was, however, temporarily revived during the Tibetan Expedition of 1903-4. It is nevertheless an important village and must be so, as the first haltingplace on the Sikhim side of the passes. The village consists of about 40 houses and a good resthouse for native travellers. The old fort has gone to pieces; only a small portion of the north bastion looking up towards the Taku La remains, but many wooden barracks still stand in a more or less "tumble-down" condition, the best of these being used as the Dāk Bungalow. There is, however, a good house for the three lonely military signallers at the Telegraph Office. Once a lake existed in the hollow, an artificial one, but nothing but a swampy stream now remains. On a high knoll beyond the bazar is the Gnatong Cemetery where may be seen about 13 graves, some nameless, some named; one of which is to the memory of Major A. Bean, Superintendent of Field Post Offices, "who died between Kapup and Gnatong on 3-3-1904." The officers and men of the Connaught Rangers have recently (in 1909) erected a solid masonry obelisk to the memory of

of their comrades "who died during the occupation of Gnatong between January 1889 and October 1890." Some wooden crosses over the graves are worn and fallen, some gravestones have never been put in site. It is a lonely spot.

From Gnatong to the South we see Darjeeling and the hills and valleys between.

From Gnatong during the next three marches we go mainly down hill till we reach an elevation of about 2,000 feet at the river Rishe, which divides Sikkim from British Bhotan, below Pedong. It is a descent of over 10,000 feet in about 24 miles, and as this has to be ascended by the traveller from Kalimpong to Chumbi the wonder is that this route is so much frequented. We shall return to this question below.

From Gnatong to the next haltingplace, Sedonchen, is called 9 miles, but as we shall see it is a wearying journey all down a steep hill.

A walk of 20 minutes brings us to a cold windy corner of the road, well above Gnatong, from which splendid views are obtainable of the Kinchenjunga range as seen from nearly due East; Kinchenjunga, Kabru and Siniolchum being especially clear and fine. We are now near milestone 50. From here the road descends till we come to a hollow containing the remains of an old Camp from which a splendid view on three sides is obtained, right in front we see a path going up to the top of Mount Lingtu (12,617 feet) on which (as we have said) the Tibetans built a fort in 1888 and from which they were driven by Sir Benjamin Bromhead; to the North we see grandly the Kinchenjunga group and to the East and South the great hill Gipmochi (14,532 feet), the tri-junction point of Tibet, Bhutan and Sikkim, on the other side of which lies the great Mo Chu valley, running through Bhutan to the plains below, the destined route for the locomotive, if ever in the future a railway to Tibet is needed.

Passing the old Camp we keep to the road on the right or North side of Mount Lingtu. It is level or nearly so for about a mile, then we pass a couple of huts and the descent begins, not to end till we reach the bed of the river Rishe (some 10,000 feet below). On the face of a steep mountain like Lingtu no better road can well be expected and no other road would so well stand the rain that every monsoon beats against this height. It is not so much a road as a steeply inclined causeway of big flat stones. It is tiring to go down, it must be much worse to ascend, and we can well understand the feelings of the soldier who toiled up it, when he said that "he had heard that Tibet was a tableland, if so this road must be one of its legs." In about half an hour down this ladder of stones we meet a tiny village and a big black rock on which are carved the letters "C.I.N.R.A. 21-3-88;"—a puzzle it would take another Mr. Pickwick to solve. It took us nearly 3 hours from Gnatong to reach this spot.

The road continues down for a short bit easy, then the causeway begins again and in an hour we reach the village of Jeyluk, which, as said above, was occupied by the Tibetan forces in 1888. From this village for a few hundred yards the road is level and good, but the remorseless stone causeway soon begins again, then we catch a sight of the bungalow below, it is still however two miles off. The 42nd milepost is close by the bungalow. The so-called nine miles took us 5 hours on one occasion and 4½ hours on another, from Gnatong to Sedonchen, which only shows that marches in the hills should be reckoned by time and not by distance.

The Sedonchen Bungalow is quaint, it has a comfortable raised verandah and porch; (altitude 6,500 feet, 3 rooms and 4 beds; mean temperature 4th October, 59° F). There is a village just below. We get fine views of Sikhim valleys and of Darjeeling and also of the Tonglu-Phalut ridge.

The next day's march is to Ari, 12 good miles up and down hill. The road continues to descend and more of the

long causeway is met. In an hour we cross a log bridge into a village where a bit of level road is welcome; then we meet a bigger village, Lintang, on an open grassy slope with lofty hills behind. An hour later we pass through another village where our coolies tell us strange stories of men being poisoned. The coolies did not even stop in the village nor permit us to buy rather green oranges (at a penny a dozen). The road then runs along the gorge of the torrential Rongli river. When we passed this road in 1910 and in 1911 we counted no less than a dozen landslips, great and small, in a two hours' tramp, many of them under repair and all passable. Near the above mentioned poison village is the new bungalow of Rongli (4 miles from Ari, 8 from Sedonchen, 10 from Rungpo, 10 from Pakyong, altitude 2,700 feet, 3 rooms and 4 beds).

Crossing this bridge we ride up a stiff ascent and it takes nearly two hours to get to the top where we see two *chortens* and a small village. The Ari Bungalow is just down the slope beyond the *chortens*. It is a fine house, in a large grassy compound (altitude 4,700 feet, 4 rooms and 4 beds) and commands a fine view of the most cultivated valleys of Sikhim and British Bhotan.

The important village of Rhenock is but three miles off down the hill, and as there is a post and telegraph office at Rhenock, it is convenient to arrange for letters and papers to await the travellers there. From Ari to Rhenock the road runs down hill; in about 20 minutes we pass a small railed-in enclosure, which looks like a small cemetery. The road then becomes broad and almost level in places. Near milepost 29 we pass the handsome house of a local Tikidar, quaintly called "D. T. Prodan Cottage." Rhenock Post Office is reached ten minutes later.

Rhenock is an important centre and roads lead from there to Gnatong and to Pedong, North-West to Gantok (*via* Pakyong) and North-East to Gnatong. The bungalow (altitude 4,300 feet, 2 rooms and 4 beds) is in the bazar and is little used. From Rhenock our road runs rapidly

down to the Rishe river, it is steep and stony but shady. In half an hour the bridge is reached at the 26th milepost ; we cross over and enter British Bhotan or Kalimpong district.

Here we leave Sikhim and ride up a far from good road (in charge of the P.W.D.) towards Pedong. The bazar of Pedong is reached in about $1\frac{1}{2}$ hours from the river below, including 15 minutes' halt to rest the pumped horses.

We pass the house of the R. C. Mission, and the good P.W.D. bungalow is half a mile further on (altitude 4,900 feet, 6 rooms and four beds ; cutlery is not provided, but all else is comfortable).

On one occasion we halted at Pedong, on another we pushed on 4 miles further to the prettily situated bungalow at Rissisum in the forest (altitude 6,410 feet, 4 rooms and 4 beds).

The road from Pedong to Kalimpong is through fine forest, but we found it rough and neglected. In half an hour we reach milepost 20, and ten minutes later the signpost showing the way to Rissisum.

The main road to Kalimpong leads to a small gap near a biggish village (19th milepost) called "Pyung Argara," 9 miles from Kalimpong. From this village a road also leads down to Jalpaiguri in the plains *via* Damdim. The road through deep forest to Rissisum is very picturesque and from Rissisum the road to Kalimpong joins the Pedong one at the just mentioned village Pyung Argara.

From this village the road rapidly improves ; near the 17th milepost we see a notice showing the way to the New Cinchona Plantations at Munsong ($5\frac{1}{2}$ miles off) ; in less than half an hour we reach a village Jelapshin, whose tea-shops prove a Capua for our thirsty coolies. At milepost 13 $\left(\begin{smallmatrix} \text{T. } 13 \\ \text{R. } 13 \end{smallmatrix}\right)$ we are halfway through British Bhotan, 13 miles from the Teesta on one side and from the Rishe river on the other. Near milepost 14 we catch a sight of Kalimpong, which, however, is still some 4 miles away.

Kalimpong was gay with prayer flags as we entered the bazar and pushed on to the Post Office, and the comfortable Dak Bungalow (altitude 4,100 feet, 6 rooms and 8 beds). The afternoon can be well spent in a visit to the Colonial Homes, run by Dr. Graham, C.I.E., of the Scots Mission.

It is contemplated to make Kalimpong the headquarters of a sub-division of Darjeeling District, and it will surely become one of the most popular sub-divisions for officers who have little good in that way in the present Presidency of Bengal.

From Kalimpong a fine Cart Road (10 miles) runs down in a good gradient to the Teesta Bridge below ; and the same place is comfortably reached in about 6 miles by the use of excellent shortcuts.

Teesta Bridge we have already described. From Kalimpong to Pashoke is about 10 miles and thence to Darjeeling 17 more.

This finishes our circular tour to the passes and back and ends the list of tours we have here endeavoured to describe and recommend.

Those who make any of the above trips and are lucky in the weather will be able to agree with Freshfield when he writes :—

“I must be content to record with all the emphasis I am capable that nowhere else on the earth’s surface can there be found, within so small a radius, a combination of tropical luxuriance, sylvan beauty and mountain sublimity equal to that which meets the traveller’s eyes among the valleys and highlands of Sikhim and Eastern Nepal.”

THE MILEPOSTS IN SIKHIM.

Though we hold strongly to the opinion that in a mountainous country like Sikhim distances should be reckoned by time and not by miles, yet as we constantly pass mileposts it is useful to know what they mean.

From Darjeeling to the Teesta Bridge we assume 3 miles to Jor Bungalow bazar ; from here every quarter of a mile has a post up to the Teesta river.

From the Teesta Bridge, one set of mileposts runs up to Kalimpong and through British Bhutan to the Rishe river bridge below Pedong, and from thence to Gnatong, the miles being marked from 26 to 50. Another set of mileposts run from 0 at Teesta Bridge to 14 near Rungpo, river bridge. Thence to Gantok *viâ* Singtam from 24 to 0 at Gantok Dāk Bungalow.

To Namchi and Temi the miles count from the Manjitar Bridge (Sikhim boundary). Along the Tonglu-Phalut road the mileposts count from 0 at Jor Bungalow to 51 close by the Chiabunjan Pass. In about half an hour's walk below Chiabunjan we suddenly meet milepost 65 and this mileage continues, getting less, to Pemiongchi, Kewsing and Rungpo (another boundary of Sikhim). From Rungpo the miles count from 24 to 0 at the Gantok Dāk Bungalow.

The traveller need not count in a day's march on doing more than $2\frac{1}{2}$ miles per hour, riding up hill with syces following, walking down hill and on the level, halting every now and then to see the views, and to take a rest for man or beast.

THE BEST ROUTE FROM INDIA TO TIBET.

Many years ago Sir Ashley Eden pointed out that in the remote future the way from the plains up to Tibet must be through Bhutan and up the valley of the Mo Chu into the valley of Chumbi. This line, however, is not within the sphere of practical politics, but any one who has looked down the Mo Chu valley from near Gipmochi must agree in this view. At present the two main routes are those already described over the Nathu La and over the Jelap La.

Undoubtedly at present most of the traffic goes over the Jelap, starting from Kalimpong, and up to Gnatong by the road we have described. The great drawback to this road is the long and steep ascent from the Rishe river below Pedong up the face of Mount Lingtu to Gnatong. From the Teesta Bridge to the Jelap Pass is about 59 miles.

The route to the Nathu La, however, though a bit longer (65 miles) has the advantage of a broad Cart Road up to Gantok, 37 miles from Teesta Bridge, and a fair road onward to the Nathu Pass. The road from both these passes leads into Chumbi. Both these routes will be served by the new Teesta valley railway, which will join Sikkim to the Eastern Bengal State Railway and its widespread branches.

MAPS OF SIKKIM.

A really good map of Sikkim is still wanted. None of the Survey maps we have seen are very useful. The big map, half an inch to the mile, is 20 years old and obsolete; the smaller map (Reg. No. 146, 1906) on the scale of one inch to 4 miles is more modern but still woefully deficient and many well-known halting places are not given. "Provisional Issue Maps," sheets 77 and 78, are good, as far as they go, for Sikkim, Bhotan and adjoining Bengal Districts, but they are on a small scale.

For the traveller the best maps we know are those given in D. W. Freshfield's book *Round Kanchenjunga* and in Colonel Waddell's *Among the Himalayas*.

LITERATURE ON SIKKIM.

The *Sikkim Gazetteer* is old but good for history and geology, etc., and for a very detailed account of Lamaism (the latter by Colonel L. A. Waddell).

Himalayan Journals by the late Sir J. D. Hooker (1 vol., Ed. Ward Locke & Co., 1905) was first published in 1854, and though 60 years old is still far and away the best guide-book to Sikkim.

Among the Himalayas by Colonel L. A. Waddell, C.B., C.I.E., I.M.S. (retired) (Constable and Co., 1898) is a valuable and delightful guide to Sikkim, but is now out of print.

D. W. Freshfield's book (Ed. Arnold, 1903) is the best modern book. It is entitled *Round Kanchenjunga*.

Claude White's book *Sikkim and Bhotan* is admirably illustrated but (considering the writer's great opportunities) a bit disappointing.

The Geography and Geology of the Himalaya Mountains and Tibet (1907) by Colonel Burrard, R.E., and H. H. Hayden (Director, Geological Survey), is the best and most authoritative book on the great peaks. It is in three parts, and Part I, *The High Peaks of Asia*, is especially valuable. It is obtainable from the Superintendent, Government Printing, Calcutta.

For an account of Mount Everest from the North the reader is referred to Lieutenant-Colonel Ryder's paper in Vol. 26 of the *Geographical Journal*, or in a more accessible form to Captain Rawlings' book *The Great Plateau*, as the author accompanied Lieutenant-Colonel Ryder on his journey through Tibet at the close of the Lhasa Expedition of 1904.

For earlier explorations the reader can with advantage consult Captain W. S. Sherwill's account of his tour in Sikhim in 1852 (*J.A.S.B.*, p. 540, Vol. XXII), and Major J. L. Sherwill's account of his trip to Jongri in November 1861 (*J.A.S.B.*, No. V., 1862).^{*} For an excellent description of the work of the Great Trigonometrical Survey see J. T. Walker's account (in *J.A.S.B.*, No. I., 1862, p. 32). The great peaks are numbered I to LXXIX, and we may here give the numbers of some of the most important ones, beginning with Chumolarhi (in Tibet) No. I; Gipmochi is II; Narsing VI; Pandim VII; Kinchenjunga, two peaks, VIII and IX; Kabru X; Janu XI; Makalu XIII; Mount Everest XV; Dhawlagiri XLII. "The heights originate from mean sea level, observed in Kydd's Dockyard, Calcutta."

Sarat Chandra Das' *Journey to Lhasa* is an interesting volume, very creditable to the traveller, but he is in no sense a trained surveyor.

W. J. BUCHANAN.

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^{*} For a vivid and picturesque account of a recent visit to Jongri see *Blackwood's Magazine* (April 1912, p. 470) by the late W. H. Buchan, *dulce decus* of the Civil Service, whose too early death was much regretted by his many friends in Bengal. Mr. Buchan was accompanied by Mr. H. T. Cullis, I.C.S., and Mr. Savi.

REASON AND RELIGION.

BY JOHN MACASKILL, M.A.

ONE of the favourite antitheses of the last generation was that between Reason and Revelation. It was assumed—and the assumption still lurks in the background of religious thought—that starting out from Reason and working by its inspiration we can only build up a system of human worth, with no ultimate religious significance, whereas Revelation gives us a view of things which has absolute value for us, which bears the stamp of Divine authority. The picture presented is that of two parallel lines of development which never meet. There is a whole order of things to which we give the name of Rationalism which is outside the domain of the Divine Spirit, while on the other hand there is a system of truth, carefully matured under the Church's direction, and altogether independent of philosophic ingenuity, in which alone can men find a resting-place for their souls.

The purpose of this article is to show that this distinction between Reason and Revelation has been overdone and has led to a false and dangerous dualism. No doubt a Rationalism which ignores the claims of Revelation, is strongly to be deprecated and has historically proved its insufficiency to satisfy human aspiration, but a Revelationism, which gives no place to Reason, is equally far astray. The old antithesis of Reason and Revelation rests on a conception of Reason which is partial and inaccurate and on a conception of Revelation which is narrow and mechanical.

One might proceed to argue the matter in two ways—psychological and historical. It is with the historical survey that the writer will mainly concern himself, which will show that there has been no such separateness of action

in these two factors in human belief, as has been supposed, but that they can be seen acting and reacting on one another all down the ages. But in the first place one or two observations may be offered on the unpsychological character of the distinction.

The view of Reason underlying it is, we say, partial and inaccurate. It is forgotten that Reason is only one part of a complex nature, and that no part of that nature acts in isolation. It is this one-sided treatment of the mental life that has led to so many conflicting interpretations of human conduct—Rationalism, Pragmatism, Hedonism. Human nature must be taken as a whole. Reason does not act *in vacuo*. It works in harmony with the other powers of our nature. And, if there is a rational instinct, in human nature, there is also a religious instinct, a capacity for reverence and aspiration after the Divine, so that the keenest dialectic is lit up with flashes of spiritual intuition. In the same way the sense given to the term Revelation in the familiar antithesis is a somewhat narrow and mechanical one. It is limited in its application to the system of truth contained within the two boards of the Bible. This is described as Revealed Truth in contrast to all Truth apprehended in other ways. But Revelation is not the purely external and objective thing which this use of the term suggests. It implies a certain relation with the human subject, a certain interaction of the human spirit with the Divine. And that is not confined to Scriptural limits. No doubt the Christian Revelation holds a place by itself as the supreme manifestation of the Divine Spirit. But outside the bounds of Scripture there has been revelation in a lesser degree. Wherever we find the human mind in its gropings after Truth rising to heights of vision and rapture, we must admit a certain junction with the unseen world, the rending of the veil which hides the Divine glory from mortal eyes.

These considerations are borne out when we go on to deal with the subject historically. Instead of the parallel

and independent lines of development, which we were led on the old view to expect, we find a constant crossing and coalescing of the diverse tendencies. For the purposes of the general survey we are about to take, we shall substitute the term Religion for Revelation as being less technical in its application, and, as we unfold the page of the history of thought, we shall see these two elements of Reason and Religion impinging on one another again and again.

The great historical illustration of the activity of Reason is of course the Greek Philosophy. Socrates is considered to be the father of such as deal in that commodity. "Socrates needed truth and on this account he believed that it was to be attained if it were honestly sought for. . . . The idea that is to be more than opinion, that is to serve as knowledge for all, must be what is common in all the particular ideas which have forced themselves upon individuals in individual relations. . . . This universal in the object-matter which makes possible the subjective community of ideas is the concept, and science is accordingly conceptional thinking—abstract thought."* In Plato and Aristotle we have the systematic exposition of these principles. And yet in following out this clue of pure thought, with which Socrates had provided them, they are led at times into regions of high religious emotion. Plato's soaring apotheosis of the Idea in the Sixth Book of the Republic is almost equivalent to the acknowledgment of belief in an Absolute and Perfect Being. "Now, that which imparts truth to the known and the power of knowing to the knower is what I would have you term the idea of good, and that you will regard as the cause of science and of truth, as known by us ; beautiful too, as are both truth and knowledge, you will be right in esteeming this other nature as more beautiful than either, and, as in the previous instance, light and sight may be truly said to be like the sun, and yet not to

* Windelband's *History of Philosophy* (Eng. Trans.), p. 94-5.

be the sun, so in this other sphere, science and truth may be deemed like the good, but not the good ; the good has a place of honour yet higher. What a wonder of beauty that must be, he said, which is the author of science and truth, and yet surpasses them in beauty." *

Aristotle goes a step further and asserts the unity of the Divine with an emphasis which almost puts him on a level with the Hebrew monotheism, and with a fervour which ranks this passage among the great confessions of faith of history. "If, then, God is always in that good state in which we sometimes are, this compels our wonder ; and if in a better, this compels it yet more. And God is in a better state. And life also belongs to God ; for the actuality of thought is life, and God is that actuality ; and God's essential actuality is life most good and eternal. We say therefore that God is a living being, eternal, most good, so that life and duration continuous and eternal belong to God ; for this is God."† One of the most brilliant writers of last century has described Religion as "Morality touched by emotion ;" and there is a note of emotion in these passages from the Greek Philosophy which gives them rank as great religious utterances.

So also in the sacred books of India we find a philosophy hovering between the most abstract conception of reality, which reduces it to a mere notion, thought conscious of itself, and a more expansive mood when the soul becomes lost in wonder before the contemplation of the infinite. As Deussen puts it, the Indian philosophy can be summed up in the equation Brahman-Atman,‡ God and the soul are one. "The one God, who is concealed in all beings, who pervades all, who is the inner soul of all beings, the ruler of all actions, who dwells in all beings, the witness, who is mere thinking and without qualities. . . He is the eternal one among those that are eternal, the

* *Republic of Plato* (Jowett's Translation), p. 203-4.

† *Metaphysics*, Bk. 12, 1072b. Trans. W. D. Ross, M.A.

‡ *The Philosophy of the Upanishads*, p. 39.

conscious one among those that are conscious—the one among the many who dispenses desirable objects.” *

We see then how in reason itself there is a potentiality of religion which reveals itself again and again in the development of philosophic thought. But what is even more interesting is to note how the two streams of philosophy and religion as they flow down the course of history have time and again met and mingled. If the Greeks may be taken as the natural representatives of Reason, the Hebrews on the other hand may be regarded as the representatives of Religion. It is the purely religious genius which utters itself in the Old Testament, the vision of the eternal and the adoration of the Divine Attributes. But the two streams of tendency were destined to meet in the person of Philo the great Alexandrian sage who joined to his devotion to the Law an enthusiasm for philosophic studies and sought to wed Hebrew aspirations to Hellenic categories. “In general it may be said that the Logos-thought reaches back with only one of its roots into Old Testament soil. The other belongs to the history of the Greek philosophy. . . The most direct antecedent for the Jewish Philosophy of Religion at Alexandria was the pantheistic doctrine of the Stoic. It sought to understand the world as an animated being of uniform self-motion, while over against the crass matter it set the Logos as formative nature-power, as the rational law of all origination and becoming. . . . This line of thought Philo, the most celebrated representative of the Alexandrian school, a contemporary of Jesus and the personified unity of religious thoughts, converted completely into a metaphysical factor, working it up with the *κόσμος νοητός*, and generally with Plato’s doctrine of ideas No watchword was more adapted for the rising world-religion, than that obtained by Philo through combination of the Jewish revelation-word with the Stoic

* *Santaspatra Upanishad*, VI., 11-13. Selections from the Upanishads: Christian Literature Society, page 59.

world-reason.”* The same process repeats itself in New Testament times. In Christ we see the consummation of the religious movement, which expresses itself in the history of Israel. He is the flowering of Israel’s hope and aspiration. In Him the heart of the eternal has fully uttered itself, and the beauty of Heaven been mirrored upon earth. And yet even the followers of Christ have to resort to philosophy for the interpretation of the faith that is in them. The speculative tendency once more asserts itself, and as early as the production of the Fourth Gospel we have an attempt to give a universal setting to the Christian facts by an adaptation of the Logos-doctrine. And we know, when the Church proceeded to put her beliefs into propositional form how freely she had recourse to philosophy for the technicalities of expression, such as *οὐσία*, *πρόσωπον* and *ὑπόστασις*. Philosophy indeed obtained an undue ascendancy in the schools of theology until in the Middle Ages the Church went into what might be called her Aristotelian captivity. “In the second section of the scholastic era, when the physics and metaphysics of Aristotle were in the hands of the schoolmen, the esteem for the ancient master in philosophy was carried to the highest pitch. He was deemed to have exhausted the resources of the human mind, when it is not aided by supernatural light, in the ascertainment of ethical and religious truth. Not unfrequently, the Bible and the Fathers were neglected, and passages were cited from Aristotle in support of dogmas, as if he were an infallible oracle,”† the reaction has come long since. We have lost interest in the elaborate systems of our forefathers and content ourselves with a simpler and more practical exposition of the truth. And yet even we with all the matter-of-factness of our attitude towards religious questions show the working of the philosophic leaven. Not long ago the present writer had the opportunity of perusing a paper

* Holtzmann : *Das Evangelium des Johannes*, pp. 41, 42 and 45.

† G. P. Fisher : *The History of the Church*, p. 215.

contributed to a certain literary and philosophical society, in which the striking fact was brought out, of which most of us have probably been oblivious, that one of the most distinctive terms in modern Christian phraseology—the term “ideal”—is not a Christian term at all, but has been borrowed from the Greek philosophy. We know how characteristic this word is of the religious teaching of our time. Scarcely a sermon is preached in which it does not occur. The pages of our religious literature ring with it. Let us mark it in this passage from Seeley's *Ecce Homo*, a passage curiously enough where he is drawing the contrast between Christianity and Philosophy—“Philosophers had drawn their pupils from the *elite* of humanity; but Christ finds his material among the worst and meanest, for he does not propose merely to make a good better but the bad good. And what is his machinery? He says the first step towards good dispositions is for a man to form a strong personal attachment. Let him first be drawn out of himself. Next let the object of that attachment be a person of striking and conspicuous goodness. To worship such a person will be the best exercise in virtue that he can have. Let him vow obedience in life and death to such a person; let him mix and live with others who have made the same vow. *He will have ever before his eyes an ideal of what he may himself become.* His heart will be stirred by new feelings, a new world will be gradually revealed to him, and, more than this, a new self within his old self will make its presence felt, and a change will pass over him which he will feel it most appropriate to call a new birth.”* These words are a reflection of the modern religious attitude, to which truth presents itself not as formal propositions to be accepted and carried into effect but as ideal realities to be striven after.

A similar point of view is found in another typically modern religious teacher, Professor Henry Drummond, one

of whose volumes, published posthumously, is entitled *The Ideal Life and other Addresses*. "The great philosophers," he says, "from Socrates and Plato to Immanuel Kant and Mill, have given us their conception of an ideal human life. But none of them is at all so great as this. Each of them has constructed an ideal human life, a universal life they call it, a life for all other lives, a life for all men and all time to copy. None of them is half so deep, so wonderful, so far-reaching, as this. 'A man after Mine own heart, who shall fulfil all My will.' . . . If a man could follow Christ he would lead the model life. But what is meant by telling a man to follow Christ? How is it to be done? It is like putting a young artist before a Murillo or a Raphael and telling him to copy it. But even as the artist in following his ideal has colours put into his hand, and brush and canvas, and a hint here from this master, and a touch there from another, so with the pupil in the school of Christ. The great Master Himself is there to help him. The Holy Spirit is there to help him. . . . Let us search our Bibles then to find this ideal life, so that copying it in our lives, reproducing it day by day and point by point, we may learn to make the most of our life, and have it said of us, as it was of David, 'A man after Mine own heart, who shall fulfil all my will.' "* We perhaps see in these sentences the term in question in process of transference from the philosophical to the religious sphere. At any rate the fact remains that this word which plays so leading a part in the religious discourse of our time is a loan-word from philosophy. We shall search the pages of the New Testament for it in vain. It is but an adaptation of the idea which forms the staple of Plato's system. No doubt the thought which is conveyed in the word is not strange to the New Testament. It is there alone that it finds true scope. As Seeley and Drummond remind us, Christ is for the Christian—the ideal.

* *The Ideal Life*, p. 220-1.

"Is there or is there not an absolute justice?
 Assuredly there is.
 And an absolute beauty and absolute good?
 Of course.
 But did you ever behold any of them with your eyes?
 Certainly not."*

By the Christian the question would be otherwise answered. He claims to have seen the absolute. A perfect revelation of beauty and goodness has been given to him in Jesus Christ, who has thus become the ideal of the Christian life. But, while the thought is not strange to Christianity, it is only with the aid of philosophy that it has found articulation. The language of Plato has been used to unfold the riches of Christ.

While Christianity can thus be seen again and again turning to philosophy in the course of its history for adequate expression of itself, equally can philosophy be shown to have been modified by its contact with Christianity. It is the genius of Christianity to pervade the life and thought of the lands where it takes root in all their aspects, poetry, music, economics, jurisprudence, and to this rule philosophy is no exception. It also shows evidence of the leaven by which the whole is leavened. Individual philosophies of our time such as Utilitarianism and Pragmatism, have sought for themselves the sanction of New Testament teaching. John Stuart Mill says: "In the Golden rule of Jesus of Nazareth, we read the complete spirit of the ethics of utility. To do as one would be done by, and to love one's neighbour as oneself constitute the ideal perfection of utilitarian morality;"† while Professor James characteristically describes one of his books (*The Will to Believe*) as a "justification of faith."‡ Even in France, the stronghold of the scientific view of life, other voices are beginning to be heard. The positivistic spirit, so native to French thinkers, is being affected by the spiritualistic currents

* *Dialogues of Plato*, Jowett's Translation I., p. 438.

† *Utilitarianism*, p. 24-25.

‡ *The Will to Believe*, p. 1.

of our time. In his *Creative Evolution* Bergson frankly admits that the time has come for adapting the conclusions of science to the intuitions of religion. "Philosophy," he writes, "introduces us thus into the spiritual life. And it shows us at the same time the relation of the life of the spirit to that of the body. . . . They are right to believe in the absolute reality of the person and in his independence toward matter ; but science is there, which shows the interdependence of conscious life and cerebral activity. They are right to attribute to man a privileged place in nature, to hold that the distance is infinite between the animal and man ; but the history of life is there, which makes us witness the genesis of species by gradual transformation, and seems thus to reintegrate man in animality. When a strong instinct assures the probability of personal survival, they are right not to close their ears to its voice ; but if there exist 'souls' capable of an independent life, whence do they come ? When, how and why do they enter into this body which we see arise, quite naturally, from a mixed cell derived from the bodies of its two parents ? All these questions will remain unanswered, a philosophy of intuition will be a negation of science, will be sooner or later swept away by science, if it does not resolve to see the life of the body just where it really is, on the road that leads to the life of the spirit."* It will be interesting to see what further expansion M. Bergson gives to these views in his forthcoming Gifford Lectures at Edinburgh University.

It is, however, with the main current of philosophical development that we are concerned and the traces which it shows of Christian influence. German Transcendentalism may be regarded as the legitimate heir of the ancient philosophy. It is in Germany that abstract speculation has found its second home, and the quest of Reason, which Socrates initiated, has been most vigorously prosecuted. And the transcendental philosophy has to all intents and

* *Creative Evolution* (English translation), p. 283-4.

purposes become a Christian philosophy. It is true that Kant, its great pioneer, came forth as an apostle of Pure Reason and the title which he gave to one of his later works *Religion within the Limits of Mere Reason* would indicate jealousy of the encroachments of religious tradition on the domain of philosophy. "An exposition of the Revelation that has come to hand is demanded, a general interpretation of the same, in a sense that agrees with the universal practical rules of a religion of pure Reason." *

But when we come to examine the so-called rational system unfolded in this volume, we find in it distinct traces of a religious ancestry. Kant finds one of the twin-pillars of the "acceptable" life in an idea of grace which has a decidedly Biblical complexion about it. "To believe that there can be operations of grace and perhaps must be for the supplementing of the imperfection of our virtuous endeavour, is all that we can say about it. Beyond that we are incapable of determining anything with regard to their distinctive signs, still less of doing anything to produce them." † Again, "with regard to the lack of righteousness of our own (which avails before God) reason leaves us not altogether without consolation. It says that the man who in a true spirit and one of devotion to duty does as much as lies in his power, in order (at least in a constant approximation to complete accordance with the law) to satisfy his obligation, may hope that, what does not lie in his power, will in some way be made up by the Highest Wisdom." ‡

Kant goes the length indeed of accepting the Church with its means of grace as a vehicle for the realization of his ethical ideals. He specifies four functions which such an ideal Church might fulfil: (1) To establish it (the moral good) firmly in us and to awake the sense of it repeatedly in our mind (Private Prayer). (2) The outward expansion

* *Kant's Samtliche Werke* : Hartenstein, Vol. VI, p. 207.

† *Ibid*, p. 274.

‡ *Ibid*, p. 274.

of the same through public assembly on days devoted thereto, with the purpose there of giving articulation to religious doctrines and aspirations (and such like matters of the spirit), and so making a common communication of them (Church going). (3) The propagation of the same to posterity, through receiving newcome members into the fellowship of the faith as in duty bound to instruct them therein (in the Christian religion Baptism). (4) The maintenance of this fellowship by a repeated public ceremony, which makes the union of these members in one ethical body and indeed according to the principle of the equality of their rights among themselves and of their share in the fruits of the Moral Good, an enduring one (the Communion).” * When we pass to Hegel, we find a frank acceptance of Christianity as an essential moment in the self-revelation of the Absolute. Hegel, indeed, sought to institute a new dogmatic for Christianity, though with doubtful success.† “The Christian community,” he says, “must be, and ought always to be, unified by the tie of a doctrinal idea, a confession of faith; but the generalities and abstractions of the stale, not living, waters of rationalism forbid the specificity of an inherently definite and fully developed body of Christian doctrine.”‡ Hegel’s followers, especially those of the English school, show a large infusion in their writings of that Biblical flavour which had already made its appearance in Kant. They delight in quotations from the New Testament, notably from the fourth Gospel; and in the lay sermons of T. H. Green and Edward Caird Hegelianism has been invested with all the impressiveness of a religious message. There is one point in particular in which the idealistic philosophy owes its inspiration to Christianity, and that is in its doctrine of self-realization through self-sacrifice. We see here the contribution which the Cross has made to our view of life. “The educated citizen of Christendom,” writes

* *Kant's Samtliche Werke*: Hartenstein, Vol. VI., p. 207, p. 292.

† See Mackintosh *The Person of Jesus Christ*, pp. 256-264.

‡ *The Logic of Hegel*: Wallace. Introductory Notice, p. 25.

T. H. Green in that classic of Neo-Hegelianism *The Prolegomena to Ethics*, "is able to think of the perfect life as essentially conditioned by the exercise of virtues, resting on a self-sacrificing will, in which it is open to all men to participate, and as fully attainable by one man, only in so far as through these virtues it is attained by all." In thinking of ultimate good he thinks of it indeed necessarily as perfection for himself; as a life in which he shall be fully satisfied through having become all that the spirit within him enables him to become. But he cannot think of himself as satisfied in any life other than a social life, exhibiting the exercise of self-denying will, and in which 'the multitude of the redeemed,' which is all men, shall participate."*

The wholesome reaction which Christian teaching has had on philosophic thought in European lands is all the more evident by contrast with the ascetic philosophy of India in which this altruistic element is largely at a discount. Indian philosophy too has its sublime message of sacrifice; but it is sacrifice, not for the sake of others, but for the perfection of the individual, for his sublation indeed in the universal. Whatever the true antecedents of Hindu philosophy may be, whether or not a connection with Greek philosophy can be established, it is clear that it has never advanced beyond a stoical self-repression. Christianity has taught a larger and more human doctrine, which has reflected itself in the thought and activity of Christian lands, that the individual is to sacrifice himself for the good of the community and to find a fuller life in the wellbeing of the whole. "Whosoever shall lose his life for My sake and the Gospel's, the same shall save it." In the ethical philosophy, in the humanitarian legislation, in the missionary spirit of our time Reason and Religion are once more finding their reconciliation.

JOHN MACASKILL.

Paisley.

* *Prolegomena to Ethics*, p. 414-415.

THE DOCTRINE OF MÁYÁ IN INDIAN PHILOSOPHY.*

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THE best that Indian Philosophy has to offer is to be found in the System of the Vedanta, which taking its rise in the early mystical outpourings of the Vedic poets and richly watered by the speculations of the Upanishads, appeared in a mighty stream between the sixth and eighth centuries A.D. Then it was that the great teachers, Gaudapáda and Shankara appeared to give a final shape to the vast and scattered mass bearing on the doctrine of Advaitism (Non-Duality), which was already advocated in simple and easy words with great enthusiasm, fervour and rigour by the sage Yájnavalkya. They crystallized the same earlier thoughts into a clear and well-defined organic system, where each constituent was assigned its proper place, and they stand as the typical exponents of the Advaita-Vedanta, holding as they do that (*a*) the Atman (Self) is the only reality, (*b*) the Atman is really without any attributes or qualities, (*c*) the distinction between the individual and the Universal Self, though empirically valid, is finally illusory, (*d*) the phenomenal Universe is *Máyá*. This system may be characterized as Pure (or Supra-personal) Idealism. In the twelfth century, however, another great teacher, Rámánuja, came forward to plead for the theologian and the pious devotee, and gave out that the Absolute was not without qualities, but was invested with all auspicious and good attributes, personified in Vishnu, and in His grosser form appearing as the Universe with all its differences. Distinguishing between God, Soul and Matter,

* A paper read at the Fourth International Congress of Philosophy held at Bologna (Italy).

granting still the unity of the Supreme Spirit, he conceived these distinctions as *real* and *within the Absolute*.^{*} Hence this system is known as Theistic, Qualified (or Personal) Idealism. The following century witnessed still greater degeneration of Pure Idealism in the doctrine of the essential reality of Difference represented by Madhva (also known as Anandatirtha). To him God and man were related as master and servant, the one independent and the other dependent. God manifested Himself in the form of the Universe by His own *will*. This view may be called Realistic or Dualistic Idealism. The name perhaps sounds a little paradoxical, and I personally believe that this system has very weak claims to be classed within Idealism. Still later, however, in the fifteenth century, India gave birth to another distinguished thinker Vallabha who, revolting against Rāmānuja's conception of God's inseparable union with Matter—which seemed to him a contradiction in terms—and with a view to purge or purify the Vedānta of all such “soiling” influences, held the Universe (including “man”) to be a process of evolution and involution of God at regular intervals. Hence this view may be called evolutionary Idealism. Information on this point, however, is comparatively very scanty and meagre.[†]

These are in brief the four schools within the Vedānta itself, with their principal promulgators Shankara, Rāmānuja, Madhva and Vallabha. The first explains the universe with all its multiplicity of phenomena as metaphysically unreal, appearing as such only because of our imperfect mental apparatus or “ignorance” (*avidyā*), the second assumes its reality and derives it from inherent differences existing in the Absolute, the third from the body of the Supreme and the fourth by an evolution and involution of the Deity. I am concerned here mainly with the

^{*} The typical example given is that of a *tree*, which *one* in its totality, yet contains real differences *within* it (*svagatabheda*), such as the branches, foliage, etc.

[†] No European scholar has yet approached Vallabha's system or said anything worthy on the subject. In fact, materials to work on are scanty, and even in India, published and unpublished manuscripts on the subject are very limited.

first, but this brief survey of the general position is intended for a clearer understanding of the Doctrine of Máya, on which I can now only offer a few general reflections, to keep within the score offered.

The ultimate problem of all metaphysics, throughout all ages and all countries, has been "the riddle of the Universe," which demands an explanation of the relation between the Absolute, Man and the Universe. Even the most thoroughgoing Monism has to start with these three primary entities guaranteed by experience—at least with the supposed, empirical and mutually-exclusive existence of these. Experience may be utterly helpless to furnish us any clue to the solution of the great problem, yet in order to transcend it or even to touch its final limits, Metaphysics has to start with its assumed data. Hence starting with these *three* assumed realities, the Advaita philosophy discusses the claims of Reason as an organ of judgment on transcendental problems. This is the Vedantic Epistemology. Our intellect can only arrange and rearrange the facts of our experience, but being *within* experience, it cannot *explain* experience as a whole. It is incapable to know things as they are. Its canons cannot satisfy the demands of Metaphysics;* rather they involve us into contradictions and paralogisms and lead us to different conclusions.† Hence a criticism of "pure reason" convinces us of its inadequacy to cope with the problem of Reality and leads us to prefer the authority of Revelation (*Śruti*)—universal intuition. The former is helpful only as a handmaid to the latter, to serve and aid when necessary.

There are, however, two kinds of knowledge of the Absolute,—the higher or esoteric (*parā*) and the lower or exoteric (*aparā*), and even Revelation has to be classed under one or the other according as it has for its object right knowledge of the Absolute or merely aims at his

* Cf. "na eshā tarkavā matirāpaneyā"—Katha Up. 2. 9.

† "Tarka apratishkhandi"—Vedānta sūtras, 2. 1. 11.

worship. Shankara rightly regards the esoteric elements of knowledge as the real truth, according to which the Absolute (Brahman or Atman) is devoid of all attributes,* distinctions, forms and limiting conditions—the exoteric aspect being useful only for the worship of the Deity, to guide those who have not yet reached that stage of development where they can *see through* things, as it were. Such Revelation boldly denies the tripartite division of Reality and emphasizes the assertion that the Atman is the only Reality. Hence the universe, composed as it is of plurality and difference, with all its multiplicity of “limited *selves*” is unreal; it is only an appearance, which our intellect has created by its own “ignorance” (*avidyā*); it is the Will invested with our intellectual forms of Space, Time and Causality.* This appearance haunts us ever like an apparition and it is impossible to get rid of it so long as we do not *realize* the unity of existence, the homogeneity of the conscious and unconscious Will, the oneness of our limited Self with the Absolute, the nearest description of which is Existence, Knowledge and Bliss.† Revelation interprets the universe as a “non-existence,”‡ Reason declares it as “indescribable,”§ and Common-sense calls it “real.”|| The first is the standpoint of Indian Idealism (*advaita*), and this very idea of the metaphysical unreality of the world is technically known as the Doctrine of *Māyā*.

On the relation of the Absolute to the individual Self—of the Atman to the *Jīva*—one of the principal similes employed is that of the *ākāśa* (ether, space), which is alike eternal, indivisible and all-pervading. As the space enclosed in a jar is not qualitatively, or as such, different from the universal space, its limiting conditions being only a particular *name* and *form*, imposed by us; so too we

* *daśa-kāra-nimittam.*

† *Sat, Cit and Ananda.*

‡ *icchā māyā.*

§ *anirvacanīya.*

|| *advaita.*

impose the *upādhis* of *name* and *form* on the Absolute, which then appears to us as *limited* in the individual. Hence the supposed "separation" turns out on a deeper reflexion to be a mere distinction, only conventionally real. For says Gaudapáda,* if the distinctions were real, the immortal would necessarily become mortal, which on the very face of it is impossible, since a thing cannot be changed into something of quite an opposite nature. Hence the Absolute undergoes no *transformation*, or *development* or *degeneration*, in order to bring about the wonderful mechanism of the universe. The universe is created, maintained and imposed upon me by my own *avidyá*; it is my false supposition which is destroyed only by right knowledge. The ever-unborn Atman cannot be supposed to take on birth after birth *ad infinitum*. No liberation will then be possible. The "birth" of the world is only possible through *Avidyá*, since nothing can be actually born of the Atman. We may only imagine it producing or creating the world, and may amuse ourselves with these fantastically rich ideas, but then we are far from grasping the ultimate Reality. These ideas are no more than symbols or metaphors. Many interesting similes have been used to illustrate the illusion of the cosmos, some of the more important of which are :—

(1) *The Rope and Snake*.—On entering a dark room, where a piece of rope is lying on the floor, I imagine it to be a snake, retract my steps, begin to tremble and cry out. On a closer examination the snake turns out to be an illusion, due to my imperfect vision. Yet as long as the illusion lasted, the snake was a reality for all purposes, *e.g.*, it caused my trembling, crying out, etc. The rope was, of course, never *transformed* into the snake.

(2) *The Desert and the Mirage*.—Walking on a sandy desert, I sometimes see a mirage appearing before me. It could never really exist in a desert, yet it appears to

* "Kárikas on the Māndūkya Upanishad," III, 21. ॥

my view and for the time being *is* real. Overtaken with thirst I run towards it, but on my approaching, it suddenly disappears.

(3) *The Dreamer and the Dream-world.*—In my dream I create a new world of my own, which is as real as my waking world as long as the dream lasts. On awakening I realize its illusive character.

The *tertium comparationis* in each of the above is not difficult to discover. The cosmic illusion is projected by us; our intellect imposes the forms of Space, Time and Causality on that Reality which defies all such limitations in its essential nature. Brahman's essential nature, as Spaceless (*prāna*), Timeless (*śāśvata*) and Changeless (*avikāri*) is especially emphasized by the Doctrine of *Māyā*, hence it sets aside once for all the notions of theism, deism, creationism, etc., which are indeed mythical representations, and cannot be taken literally. No advanced thinker will, I believe, now have much sympathy with the popular conception of anthropomorphism, cosmogonism, etc. The similes spoken of above must not be interpreted too literally, since in that case no analogy could be perfect; and indeed similes do not walk on four legs. What is intended to bring out there is that the multiplicity of the universe does not hold *metaphysically*. The illusion is dispelled by right-knowledge or Self-realization, just as the disparate vision of a person suffering from a certain disease of the eye—through which he sees everything in duplicate, two suns, two moons, etc.—is removed by curing the eye-disease. Our intellect which is ever going *outwards* has only to turn *inwards* to realize the Atman, the Self; the affirmation of the Will is to give place to its negation, and then the illusion will vanish and the idea of multiplicity will disappear.

The Doctrine of *Māyā* must not be misunderstood to ignore or to obliterate all empirical distinctions by taking them as illusory. The transcendental ideality of the world does not deprive it of its empirical reality. The two

standpoints* are clearly distinguished. Empirically, all distinctions are valid, all relations hold good, all law and order are observed, all right actions are enjoined, all duties and virtues have their respective spheres,—hence the theory does not preach the gospel of inaction by ringing the death-knell of morality, as has been unfortunately imagined by some critics, who have perhaps studied the subject either in a second-hand and slipshod translation or in a third-hand exposition. On the contrary, all moral actions become actions of *love* and receive their full significance in the light of our Doctrine, especially in its principle of the unity of the Self. Even on attaining a perfect understanding one does not become *immoral* but only *non-moral*, since at that stage one has transcended the sphere within which moral distinctions are necessary. All injunctions are of course justified till the awakening of a true knowledge of the Self, the negation of the Will to Life, when all seeming dualities and differences *merge* into an indistinguishable unity. Literally, such *merging* even never takes place, since duality never was a truly established fact. Still we have to employ *words*, howsoever weak and inadequate instrument of thought they may be. Such truths are even beyond mere thought—since they are known only by *anubhava*—and what can *words* do? The Atman (or Brahman as “*das Ding-an-sich*”) is, as said above, beyond all speech, all cognition, all attributes, all limitations, etc. Well said the early sages :—

“*Yato vaco nivartante aprápya manasá saha.*”—(Taitt. Up., 2. 4.), *i.e.*, “whence words return along with the mind without having reached It.” In such a knowledge of the Absolute the distinction of “subject” and “object” is lost because they coincide, hence no scope for speech. “The Atman is ‘silence.’” The very nature and organization of our intellect preclude us from a knowledge of Brahman, which is free from its innate forms of space, time and causality. The noumenal aspect of Brahman is the true

* *Pāramārthika* (transcendental) and *vyāvahārika* (empirical).

standpoint, yet Advaitism does not fail to recognize the lower or the phenomenal aspect as well. The critics of the Doctrine very often lose sight of this concession made by Pure Idealism to Common-sense. And no further concession seems necessary.

* This very short sketch may help a little in bringing home the essentials of the Mâyā-theory.* Now, my thesis on this problem is—and here I have no hesitation in parting company with a host of European and other scholars who have spoken on the subject—that this doctrine is not a later secretion in the Vedānta, that it has not been “invented” by Shankarā, that it is no new plant grafted on the soil of the old Advaita, but is a natural and systematic development of its more rudimentary and crude, yet no less clear and distinct, form in the early Upanishads. It may be enunciated in either of the two ways—(1) that the Atman is the only reality, (2) that the phenomenal world, being as such not-Atman, is *not-real*; that is, the world is an illusion. These two statements are simply two poles of the same thought, and seem to me to imply one and the same truth; the truth of the second statement follows directly from the first. If this simple fact is not set aside, the theory of Mâyā will at once be transparent in the Upanishads. Yājñavalkya was inspired by the same thought when he taught in the earliest Upanishad : †

“mrityoh sa mrityum āpnoti
yo nānā iva iha paśyati”

i.e., “From death to death he goes, who sees here plurality as it were.”

This shows that all plurality is false, and he who even imagines it (*iva-* as it were) by his ignorance, is not liberated but moves on with “the wheel of Samsāra,” ever and ever through births and deaths. Such passages

* Here it is not possible to treat the Doctrine more than in its simple outlines. I have, however, discussed the same at some length, with all necessary references, tracing its development from the earliest times, examining the chief objections, and ascertaining the use of the term itself, in my book on “The Doctrine of Mâyā in the Philosophy of the Vedānta,” published in London (Luzac and Co.).

† *Bṛhad. Up.*, 4: 4. 19, *Kātha Up.* 10,

can easily be multiplied * and I perceive in them the clearest indications of the theory. In fact the idealism of Yájnavalkya is the most brilliant exposition of Máýá in the earliest philosophical treatises. The germs of the conception are found even in the Rigveda, where, *e.g.*, it is said :—

“ekam sad viprá bahudhá vadanti.”—RV. I. 164.

i.e., “Of the *one* existence the poets speak in diverse ways.”

This means that the only reality is the one Atman, but its representation as “the many” is only a matter of words—hence false. The unity of Being is the theme of many other hymns in the last Book of the Rigveda. How those who imagine the Máýá-theory to be a later importation into the Vedanta will explain such passages consistently, they themselves know. To grant the truth of statement (1) as above and to question the validity of (2) seems to be only due to some deep-rooted theistic bias.

But one would naturally retort that the greater bulk of the Upanishads speaks of the “extensity” of Brahman, and is saturated with a pantheistic trend of thought. How can the Máýá-theory be maintained in face of such strong evidence on the other side? Thus, one would reason that the world being declared Brahman,† and Brahman being the only reality, it follows that the world is a *reality*—not an *illusion*. Now such a syllogistic and clever argument, in spite of being the common stock-in-trade of some “thoughtful critics” seems to me to be based on a flagrant fallacy. The term “*world*” is used in two entirely different senses, hence the syllogism involves “four terms.” Let it be clearly understood that the world as qualified by the *a priori* forms of space, time and causality, is *not* Brahman, is *not real*; as such it is an “Appearance,” an “illusion.” But in its essential nature, stripped of our intellectual forms, the world is nothing different (*bhinna itara*) from

* Compare, *e. g.*, *Brihad Up.* 2. 4. 14, 2. 4. 5, 2. 4. 7, 4. 5. 8 ff., 4. 5. 15; *Chand. Up.* 6. 1. 4 ff., etc.

† *Chand. Up.* 3. 14. 1 :—“*Sarvam khalu idam brahma.*”

Brahman. It is beyond doubt that the same one *sattā* as *Will* is interpenetrated even in the humblest stone on a hill-top, yet that stone, nay the whole "extensity" as it appears to us, is not Brahman. *As such* it is *Māyā*, *in itself* it is the Absolute. Only in that sense is the world *real*. In its simplicity and depth this very thought appealed so strongly to Schopenhauer (who appeared 1000 years after his spiritual predecessor Shankara) that ever with an increasing appreciation and fervour he developed it scientifically in his chief work, "*die Welt als Wille und Vorstellung*." His conception of *der bewusste und der unbewusste Wille* was a great discovery in European philosophy, but modern Europe, dominated as she is by Empiricism, refused to do him the honour that he deserved. It would be a similar misunderstanding of his philosophy to infer the reality of *the world as phenomena* by identifying it with *der Wille*. The distinction I have referred to above is dwelt upon at length by Schopenhauer.

The critics of the Doctrine also very often fall into another great error, namely, of hypostasizing *Māyā*, by taking it a *real somewhat*, standing face to face with Brahman, by assuming it as a sort of *tertium quid* between the Absolute and the world. This misapprehension is already anticipated *within* the Vedānta itself, *viz.*, in Rāmānuja's polemic against *Māyā*.* Assuming it as a separate and concrete reality, he goes on to ask:—What is its seat? Where does it reside? How can it conceal the Self-luminous Brahman? What is its essential nature, being neither reality, nor unreality? How can it be indescribable (*anirvacanīyā*)? What are the means of its cognition? How can the knowledge of the unity of the so-called "*attributeless Brahman*" remove *Māyā*? How can it at all be removed, since the bondage being determined by *karma* is real? Now, all such questions with arrays of exhaustive argumentations turn out a mere *fiasco* the moment one reflects a little deeper on the genuine position

* See *Sribhāṣya*, I. 1. 1.

of the theory. Of course passages are also found where Máýá is said to *create* the world, rather God taking upon Himself this function with the help of Máýá. There one would at first naturally think that Máýá is a distinct reality. But one must not forget that all such passages are more or less metaphorical, and make use of graphic representations only within the exoteric sphere. Truly speaking, the world is not *created* by Máýá, but is itself Máýá. The hypostasizing of Máýá would certainly lead to countless difficulties and add to the perplexity of the situation, for which the Doctrine cannot be held responsible. But this tendency seems to be deep-rooted in human nature. Plato was taken to imply an actual separation and cleft between the world of "Ideas" and of "copies," though his "Ideas" were never *in space*. Kant is still being grossly misunderstood similarly to imply an antithesis between the so-called *two* worlds of "*die Erscheinung*" and "*das Ding-an-sich*." In fact, every thinker in the past has been more or less misunderstood by his successors.

Shankara perceived, with a prophetic vision as it were, the future deviations from his system of Máýáváda, and refuted them * by showing that the individual cannot be a *part* of the Absolute (Rámánuja), since the latter is timeless, spaceless; neither a different thing altogether from the Absolute (Madhva), since "the other" does not exist, the Atman being the only one reality; nor an evolved product, or a metamorphosis of the Absolute (Vallabha), since the latter is not subject to change or causality. Consequently the two are *identical*. Each of us has all divine qualities, but these are hidden as fire in wood, and the truth that "I am the Absolute" ("*aham brahma asmi*") has its full significance in my experience only on my deliverance from Máýá.

Such are some of the thoughts India has to offer on the crucial problem of metaphysics. Those who *despise* Indian philosophy must first *learn* it, from original sources

* See *Sarirakabhāṣya*, II. 2.

if possible, and their attitude will perhaps at once change. Those who ridicule it as "thought run mad" or dub it as "an inchoate mass of superstitions" must not forget that voices from Greece and Germany are also at one in proclaiming the same eternal truth in similar thoughts, and if all these vital truths, such as the doctrine of *Máyá*, are labelled as "ravings of mad thought," then perhaps *sane* thought is only to be found in the "bread-and-butter" or the "profit-and-loss" philosophy. Such pseudo-philosophies may have their day—and in India too they have had their spasmodic existence—but in the long run Philosophy shall be delivered from her miserable "den," and once more restored to the pedestal she deserves, when the fundamentals of the Indian Vedanta, of the German Kant and Schopenhauer shall once more be appreciated. No country in the world has a *deeper* philosophic temper than India, and the watchword of her higher Metaphysics is—

"*máyámátram idam dvaitam advaitam paramárthatah.*"

This duality (*i.e.*, the world) is *Máyá*, in sooth it is non-duality.

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SOCIAL CONDITIONS IN CALCUTTA.

IV. CITY DEVELOPMENT.

BY ROBERT ANDERSON.

THERE is nothing more striking in recent years than the increased interest that is being taken in schemes that have for their object the improvement of our cities.

At a time when a notable stage has been arrived at in the development of Calcutta and when anxious consideration is being given to its many complex problems it may be of interest to refer briefly to various causes that brought about a similar movement in our Home cities.

Although the conditions of life and the manners and customs of the city dwellers differ widely, yet a close connection can be traced in the economic condition of nearly all civilized countries, resulting in a great influx of the population from the country to the town. The growth of the mechanical industries, following an era of invention tended to the massing of workers employed in factories. Along with this there was a growing tendency on the part of the wage earner to drift to the city to obtain employment, all helping to add to the congestion.

"Most cities grew before the nature of city life and its problems were realized, or, as Professor McGregor puts it in *The Evolution of Industry*, "the nation had forgotten to live in the country long before it had learned to live in the city."

Up to within very recent years a large proportion of wage earners in all manufacturing towns had to pass their lives and rear their families in squalid insanitary dwellings. Very little interest was taken in their condition by the public generally. Disease was looked upon as an evil which accompanied the growth of city life, and moral and physical deterioration was inevitable.

The labours of social reformers like Lord Shaftesbury in the middle of last century resulted in a series of acts being passed from 1857 to 1867 dealing with the problem of housing reform in slums.

Further powers were given to Municipalities to clear unhealthy areas and deal with insanitary buildings under the Torrens Acts, 1868 to 1875 and the Cross Acts of 1875 to 1885. These were improved and consolidated in the Housing Act 1890 and in Mr. John Burns' Town Planning Act of 1909. This marked a notable advance on all past legislation, and its provisions for slum reform and slum prevention have been already extensively utilized. It is satisfactory to note that reports on the working of the Act refer to a material advance in the relations between local authorities and owners of land, each co-operating with the other in promoting the general interest, each recognizing that a wise system of town-planning in addition to considerations of health is true economy.

- The Local Government Board who administer the Act, entrust the duty of guiding and controlling the development of the town for the benefit of the community, generally, to the local authorities, who may be the District or Town Council or for London the County Council.

The many considerations that demand attention before any definite plan of city development can be prepared, are very clearly defined in a report issued recently by the Town-Planning Committee of the R. I. B. A. and the principles laid down by this body of experts are as applicable to Calcutta as they are to British and Continental cities.

CIVIC SURVEY.

They point out that as a town-planning scheme must both direct and limit the development of the area to which it applies, success can only be expected if it is based on a thorough survey and understanding of all existing conditions. Such survey should cover the social and economic condition of the population as well as their present distribution.

It must note its standard of health within well defined areas, its various occupations and any tendency that is shown towards change or development.

The survey must note the natural condition of the site, the nature of the soil and subsoil, the average rainfall and particulars of prevailing winds, and the access that is afforded to river, road or railway.

The history of the development of any town will show the influences which have led to its existing condition and will indicate areas and buildings which must be spared and preserved on account of sacred or historic associations.

Finally, estimates of the probable future increase of population and its requirements for industrial, educational or recreational purposes should be made together with a series of suggestions of all desirable future improvements, many of which may be facilitated by a town-planning scheme even where they cannot be embodied in it.

For the use of those actually engaged in planning the town, much of this information can be indicated on maps, coloured to indicate the distribution of industrial, residential and commercial areas, the relative density of the population in different parts, insanitary areas, and the position of parks and open spaces.

It is necessary for every town-planning scheme under the Act to show the ownership of the land with correct boundaries.

The survey having been completed it becomes necessary to determine how far new facilities for locomotion are required.

Railway Companies have to be consulted with regard to extension of lines of new railways falling within the scheme. Port authorities with regard to extension in the future of the harbours and docks. Here again it is essential to provide for plenty of siding accommodation and warehouse ground adjacent to them, while dwellings for the large staff of workmen who are employed should be provided within the range of convenient access. The

Home Architects point out that as the Railway has become perhaps the most important of the modern means of approach to the city, and their stations are the modern gateways, they should receive better and more dignified treatment than they usually receive so that they may add to, or at least detract as little as possible from, the amenities of the town. They point out that the noise of railways in close proximity to buildings will be much reduced when they can be made to run in a cutting the banks of which are planted with trees.

MAIN CENTRES.

Much importance is also attached by Home experts to the formation of appropriate centres for public buildings where they can be well seen and will confer the greatest amount of dignity upon the district in which they stand.

They point out that whether such buildings are detached or grouped around a place to form a centre, ample space should be provided for architectural effect, and also to accommodate without inconvenience the large numbers of people likely to assemble there.

In practice it will generally be found that streams of traffic will tend to converge at or near these main centres as well as towards railway stations, bridges, piers, docks and markets, and to avoid congestion ample space must be provided at such points and wherever converging roads meet. If such space is not available they recommend that branching roads should be brought singly into the main road and not allow several to converge at one point.

They agree that when planning the framework of main roads an extreme symmetry of plan is not of the first importance, as this only appears on the plan and can never be seen by the spectator, but it matters greatly whether the roads meeting at the points of junction, are so related to each other that the vistas can, if desired, be closed by a well-placed building.

Irrespective of traffic consideration, some proportion between the width of the street and the height of the buildings must always be maintained, where lofty and important buildings are likely to be erected, wide streets are necessary. In the completed town it is the buildings which are seen and produce whatever effect, good or bad, is attained, therefore the experts naturally hold that the problem of town-planning in its final form is essentially an architectural problem, for the work consists in applying upon a wider field and with greater scope, the same principles, which govern the designing of *individual buildings*. It is all the more surprising that our home cities should have been allowed to grow up in a haphazard way when we remember that some of them had been definitely planned on a large scale for centuries.

If we refer to Edinburgh we find that previous to 1765 its inhabitants were crowded together in many storied tenements fronting narrow and crooked lanes and closes or wynds in the old town, branching off the main artery formed by the High Street and Canongate.

Energetic action was taken about this time by the City Fathers. Plans were obtained for the laying out of what is now the new town, making ample provision for wide streets and open spaces.

Nothing could induce the people at first to detach themselves from the ancient city, though a premium of £20 was publicly offered by the Magistrates to him who should build the first house. Their reluctance to move was no doubt largely due to the insecurity of the country in those days and to the absence of adequate means of lighting.

There is an interesting criticism of the scheme by Robert Louis Stevenson in his book on Edinburgh :—

“It cannot be denied that the original design was faulty and shortsighted, and did not fully profit by the capabilities of the situation. The Architect was essentially a town bird, and he laid out the modern city with ‘a

view to street scenery alone. The country did not enter into his plan ; he had never lifted his eyes to the hills. If he had so chosen, every street on the northern side might have been a noble terrace and commanded an extensive and beautiful view. But the space has been too closely built ; many of the houses front the wrong way, looking like the man with the muck-rake, on what is not worth observation, and standing discourteously back foremost in the ranks, and in a word it is too often only from attic windows or here and there at a crossing that you can get a look beyond the city upon its diversified surroundings. But perhaps it is all the more surprising to come suddenly upon a corner and see a perspective of a mile or more of falling street, and beyond that woods and villas, and a blue arm of the sea, and the hills upon the further side.

“ There, when the great exodus was made across the valley a new town began to spread abroad its draughty parallelograms and rear its frontage on the opposing hill, there was such a flitting, such a change of domicile and dweller as was never excelled in the history of cities.”

CALCUTTA.

Calcutta had an evil reputation in its early days, it was referred to as a place where men died like flies amid the swamps and where at the end of the rains they feasted each other in surprised celebration of the fact that they were still alive.

Though the history of its Municipal Administration dates from 1727 we find in 1803 Lord Wellesley pointing out the extremely defective construction of the public drains and watercourses, the absence of any regulation in respect of the situation of public markets and slaughter-houses, the irregularity of the buildings and the dangerous condition of the streets and appointing forthwith a Town Improvement Committee of 30 members to carry out the necessary reforms.

Apparently the returns realized from the assessments in those days were inadequate for public improvements,

and this first Improvement Committee were able to raise money by means of lotteries, 10 per cent. of their value being set aside for the purpose.

During this period previous to 1836 many new streets were opened out, including Cornwallis Street, College Street, Wellington Street and Wellesley Street, with the four adjoining squares, the Strand Road and Canal Road, Amherst Street, Colootolla Street, Mirzapore Street, Free School Street, Kyd Street, Mangoe Lane and Bentinck Street. The Balliaghata Canal was dug and the Town Hall built. Subsequent improvements to the city have been under the control of the Municipal Administration reconstituted and given greater powers.

About 17 years ago Calcutta again awoke to the fact that the sanitation of part of the town was in a bad way. As there were threatenings of a serious outbreak of plague a Building Commission was appointed to consider what amendments were required in the section of the Municipal Act that related to buildings. Certain recommendations were made which formed the basis of a lengthy correspondence between the Government of Bengal, the Government of India and the Secretary of State, until at last in the fullness of time, or, to be more exact, the 2nd January 1912, Bengal Act V., better known as the Calcutta Improvement Act, came into force.

A Board of Trustees were immediately appointed to carry out its provisions and their duties are fairly clearly defined in the opening sentence of the Act :

“Whereas it is expedient to make provisions for the improvement and expansion of Calcutta by opening out congested areas, laying out or altering streets, providing open spaces for purpose of ventilation or recreation, demolishing or constructing buildings, acquiring land for the said purpose and for the re-housing of persons of the poorer or working classes, displaced by the execution of Improvement Schemes and otherwise as hereinafter appearing.”

The Board was left with a fairly free hand and having no scheme ready they proceeded to obtain the fullest possible information. They arranged for a survey of the suburban municipalities, recognizing that the problem of Calcutta and its suburbs must be dealt with as a whole, and that small detached schemes should not be undertaken until a general plan of operations have been approved.

Meanwhile a sanitary survey of the residential buildings in the northern part of the town had been made by Dr. Craik, and plans of each ward were prepared, showing the areas in which a varying percentage of the houses were classed as unfit for human habitation.

The information laid before the Trust as well as the particulars given in the census report for the city recently issued, disclosed many interesting particulars regarding the growth and distribution of the inhabitants. We have a population of 1,043,307 living within an area of 42 square miles, Calcutta accounting for 32 square miles, the suburbs 10. A very large proportion are immigrants from every part of India—adult males, whose stay in the city may be a few years or a few months and who are content to leave their wives and families in their native villages and visit them at intervals. As the railway facilities to Calcutta have improved, permitting the influx to the town from a wider radius, the disparity of the sexes has increased, until now the proportion of males and females is as nearly as possible 2 to 1.

For the decade ending 1910 the returns show an excess of deaths over births of 145,534 annually, the birth-rate being extremely low, 17·7, and the death-rate high, 34·9. The death-rate amongst the children under 1 year of age is 31 per cent. of the births or, in other words, for every three children brought into the world one dies within a year. The report acknowledges, however, that improvements in drainage and sanitation carried out during recent years is already having a marked effect upon the health statistics.

The first year of the Trust's existence was one of preparation and organization, a staff had to be appointed, and a programme of work drawn up.

When we consider the arduous nature of the work of preparing schemes and take into account that several of the officers of the Trust had no previous acquaintance with the city and that the subordinate staffs were engaged upon duties that they had practically to be taught, it is evident that an extremely good start has been made.

The Board has been given an income of 20 lakhs a year for 60 years but the expenditure should be incurred within the first 20 years.

The receipts from the special taxation placed at their disposal during the past year were as follows:—

	Rs.
2% duty on Transfer of Property situated within Calcutta Municipality	1,69,147
½ Anna Terminal Tax on passengers by Railway or Inland steam vessel within 30 miles radius	1,84,357
Customs Duty on Jute of As. 2 per bale of 400 lbs. and As. 12 per ton on the manufactured article	8,31,411
Contribution from the Calcutta Municipality of ½% on the annual rateable valuation	7,36,962

The funds that will be at the disposal of the Trust during the period of active service are estimated to be approximately 7 crores or 700 lacs and it is proposed to apportion this sum between the various sections of the Trust's work as follows:—

400 lacs to the construction of new main roads in the city, *viz.*, the area between the Circular Canal and the Circular Road.

200 lacs for suburban main roads and bridges, for the purpose of development and re-housing areas in the suburbs, including the provision of quick transit services.

100 lacs for the provision of parks, re-housing and sanitary schemes in the city, minor developments and reserve.

In the preliminary Joint Report accompanying the scheme of main roads prepared by Messrs. Maden and Shrosbree we find particulars of the extent of the operations of the Trust as at present contemplated.

A reference to the map will show that the suburbs are treated as an important and integral part of the scheme.

On the north-east of the city the Board will have a reclamation scheme of no small magnitude in the improvement of that large area that extends to the limit of the new canal and embraces the whole triangle of land enclosed by the new canal and the Belliaghattta Canal.

Further south and eastwards the area affected by the main scheme of roads extends to the Eastern Bengal State Railway (Southern Section) while away to the extreme south-east a strip about a mile and a half by half a mile, stretching beyond the railway line, is included for development.

It will be seen at a glance that the sum total of all this added area will provide a reservoir for the overflow of the city that should suffice for a long period of its growth.

The scheme is admittedly one of main roads and does not include local improvement schemes or projects for the construction of roads to carry local traffic only. It is expected that a renewed impetus will be given to the execution of works of this nature under the powers exercisable by the Corporation.

In designing the scheme of main roads within the city it was necessary to avoid the destruction of mosques, temples and substantial buildings. Among the most important of the new thoroughfares will be the Central Avenue, which when completed may be expected to take a large proportion of the direct north and south traffic. Its two arms—one to Chitpur at its junction with Harrison Road and the other to Manicktollah—will give easy access from the heart of the town to a large area of cheap land awaiting development.

The most expensive of the street schemes notified, and the one to be first taken up is the thoroughfare from Dalhousie Square to Harrison Road.

This provides for two 60 feet roads on either side of St. Andrew's Church, which join and proceed as a new 80

feet road to Old China Bazar. This street is widened to 80 feet and continued as a new road to meet the north end of Clive Street, which is also widened to 80 feet at its junction with Harrison Road. This scheme, which is estimated to cost above 80^{*} lacs, will give direct access for fast traffic from the south to the commercial centre and Howrah.

Chowringhee traffic will also use this route by way of Bentinck Street widened to 80 feet and Lall Bazar. *

Fast traffic from the southern suburbs by way of Russa Road widened and Chowringhee, will proceed northwards by Bentinck Street, Mangoe Lane extension and Central Avenue.

Other important widening schemes include Park Street and Wellesley Street to give latter access to the south-eastern suburbs, while in the northern part of the town provision is made for widening Nimtollah Ghat Street and Chitpur, Strand and Shambazar Roads.

We will obtain about 7 miles of new roads within the city of widths varying from 100 feet to 40 feet and about the same mileage of existing roads will be widened to meet present and future traffic conditions.

In the suburbs about 15 miles of new roads of a width of 80 to 150 feet will be laid down and existing roads widened over a length of about 13 miles.

PROCEDURE OF TRUST.

When the Board has framed an Improvement Scheme they must advertise it in the local newspapers and send copies of notice to all parties interested. Then after hearing any objections that may be made they may either abandon the scheme or apply to the local Government for sanction.

Sanction having been given the Board proceed to acquire the area within the scheme under the provision of the Land Acquisition Act as modified in 1911 and a tribunal consisting of a President and two Assessors constitutes a Court of Appeal whose award is final.

Any owner whose land is included in a scheme which has been sanctioned but is not required may apply to the Board for exemption.

If the Board admits his application they immediately inform the Collector to stay proceedings while they fix the exemption fee which the owner may either pay 3 years after the date of agreement or, if he prefers, he may leave the sum as a charge on his interest on the land and pay 4 per cent. per annum interest.

The Trust has already under way a General Improvement Scheme in Ward VIII between Chitpur and Halliday Street, known as the Surti Bagan Scheme and including an area of $14\frac{1}{2}$ acres.

Scheme No. 2 is designed to improve one of our principal approaches to the north of Calcutta and includes an area near the Shambazar Bridge Road of $22\frac{2}{3}$ acres.

Other street schemes notified include the widening of Russa Road, the continuation of Chowringhee to a width of 100 feet.

The first re-housing scheme of the Trust is approaching completion and is designed to provide accommodation for the poorer classes of persons who are likely to be displaced by the improvements.

The Trust are well aware of the difficulties that beset the housing problem of the city and its first buildings will probably serve to determine if sanitary buildings of the type erected will find favour with a class of tenants who are able to pay a rental that will give a moderate return on the capital invested.

Their object in this connection is to give the best possible accommodation at the lowest rent, recognizing that if rents are higher either the class of people aimed at will not be got or if got will overcrowd to reduce expenses.

The provision of a good tramway service at reduced fares will help to attract tenants and the Trust has power to facilitate the movements of the population in this way. It is certain however that there is a large proportion of the

very poorest classes in Calcutta who will be unwilling to move into the *pucca* and sanitary rooms provided for them by the Trust but who would have no objection to occupying a chief class of bustee dwelling.

During recent years many large bustees have been removed entirely and the land on which they stood either left vacant or used for the erection of masonry buildings. In other cases Bustees have been retained and good roads laid out. On areas where huts are now likely to spring up they must be built upon sites aligned by the Municipality and conform to certain conditions which aim at the prevention of overcrowding.

We are at an important turning point in the development of the city. The Improvement Trust have prepared a scheme and have taken the public into their confidence with regard to it and explained their policy and line of action. Their operations will be far-reaching in their effects, but they will take years to accomplish. Meanwhile much could be done and should be done to remove existing evils. In many areas of Calcutta the number of insanitary buildings can hardly be estimated and there is so much to be done that the policy of doing nothing with regard to them is being largely followed.

It is the fashion to blame the selfishness of the landlord or property owner for this state of matters, though the real cause will be found to lie much deeper and may be ascribed more to the faults of our system than to the shortcomings of the individual.

Old *pucca* buildings are expensive to patch and repair and are often by no means remunerative to the owners.

More perhaps might be done by the local authorities under the section of the Municipal Act relating to the inspection and regulation of premises, by systematic inspection to point out serious defects in insanitary dwellings.

In England and on the Continent the necessity for systematic inspection of all small dwellings has been fully

proved and the District Inspectors, many of whom are women, are able to do valuable work.

There is still a general ignorance concerning the vital importance to health of light and air, and it is also a pity that in districts where paint is an unheard of luxury, the benefits of an application of limewash at the cost of a few annas per room should be so little understood.

The problems of housing reform are closely connected with the development of our city and offer great possibilities in many ways for the benefit of the community.

The accuracy of present day health statistics proves the close relationship that exists between housing and health.

It remains to be seen how far owners of insanitary property, in areas remote from the operations of the Trust, will take the opportunity to commence local improvement schemes on their own initiative.

They will find that it will probably pay them to do so and at least they will earn the indirect personal profit that ultimately justifies sacrifices made for the common good.

If we go outside the city and study the conditions under which the employees of the Jute Mills are housed we get a good illustration of what private enterprise can do in this country to provide conditions under which the mechanical industries can be carried on by workmen, under healthy conditions. Substantial buildings are provided at nominal rents in close proximity to the mills and a strict supervision exercised with regard to the general sanitation of the building, the owners finding in the health and well-being of the workers the best solution of the many complex labour problems.

That much has been done in recent years towards the development of our city is obvious to those of us whose acquaintance with it dates back to the early nineties or even to the earthquake of 1897. Within that period there has been quite a revolution in the ideas of town-planning and building construction as well as in methods of road making.

The advent of the Motor Car with its expensive rubber tyres created a demand for something better than ordinary waterbound macadam roads and with our new roads we are face to face with new methods of transport.

The extension of the tramway system has improved considerably the means of communication between the city and its environs and returns show that the facilities offered are freely taken advantage of. In Ward VI (The Ballygunge and Tollygunge area) the population has increased 47 per cent. during the past 10 years. Large areas in this district and also in Alipore have been laid out as residential suburbs and a number of attractive buildings erected.

Meanwhile within the city the appearance of our principal thoroughfares has been changing, and the modest one or two storied structures of the past are disappearing and being replaced by lofty buildings, fitted with electric lifts and all the modern conveniences demanded by the luxurious taste of the citizen of to-day. These modern buildings are being erected in all conceivable styles and so far no great attempt has been made to secure for any particular street a consistent and harmonious design. While it is true, perhaps, that the fitness of a building for the purpose for which it is built should be the first consideration and take precedence of architectural uniformity, yet it is becoming more and more recognized that the external appearance of a street building is of much more importance to the public than it is to the occupant or owner.

The difficulties of attempting to standardize buildings or even to prescribe architectural features in particular streets are obvious and authorities hesitate before laying down hard and fast regulations. No one will deny however that it is extremely desirable that upon the different plots that will soon be available on our new streets, the various buildings should be, in the main, harmonious in style.

The street effect must suffer if every building in it is striving to maintain its own individuality, and although

much can be done by the City Architect under the existing conditions to suggest alterations and improvements in designs that come before him for building sanction, much more is required.

The local architects might well have a conference and agree upon a style and treatment suitable for certain streets or groups of buildings. Designs suggesting how the sites available could best be utilized and even indicating a type and construction of building appropriate to the locality would probably facilitate the sale of the plots and enhance their value.

I referred at the beginning of this paper to the increased interest that is being taken in the improvement of the city. When the public fully realize the loss due to existing conditions, loss of time, energy and efficiency, there will probably be a still greater demand to early obtain the benefits of a wise town-planning scheme.

ROBERT ANDERSON.

Calcutta.

REVIEWS OF BOOKS.

ANGLO-INDIAN STUDIES.—By S. M. Mitra.
(Messrs. Longmans, Green & Co., London and
Bombay. 525 pages. Price, 10s. 6d. nett.)

Mr. Mitra's disquisitions, on things political and commercial, religious and philosophical, ancient and modern, great and small, cover a very wide stretch of history and of geography, and there can be few readers who will not find in this volume something that will appeal to and interest them. As the book is a collection of separate essays and articles, written at various times and places, it inevitably contains a good deal of repetition, which is not an altogether bad thing, for it ensures that the reader becomes familiar, before he is done, with the author's favourite ideas and principal purposes. The special feature of the volume, according to the writer of it, is the attempt it makes to study Indian psychology with reference to British administrative measures in this country. The working of the Indian mind, says Mr. Mitra, and most of us will agree with him, with fifty centuries of metaphysics behind it, is not always comprehensible to the practical, matter-of-fact, commonsense Britisher, and every effort that is made to bring the two into agreement is to be welcomed. Few men are better qualified than Mr. Mitra to act as an interpreter of the East to the West, of the land of his birth to the land of his adoption. He has command of a good, clear, business-like style. A lawyer by profession, he knows how to state his case and while he writes with a manifest depth of conviction there is an absence of exaggeration and a moderation of tone that will go far to gain him a respectful hearing from many who have little patience and less sympathy with the Nationalist party in India. He has also had a fairly extensive knowledge of India, both British and Native, and seven years' residence in London has given him ample opportunity of becoming acquainted with the English point of view.

Perhaps the most important chapter is that which is headed "British Statesmanship and Indian Psychology." To the Englishman, we are told, loyalty includes pride in

the greatness of his country and a consciousness of his own personal share in the maintenance of that greatness. But how can we expect Indians to cherish this sentiment when they are not allowed to land in Australia, and have so much trouble in Canada and South Africa, although these lands are under the British flag? In India itself, no position higher than that of a lascar would be open to an Indian in those ships which Indian princes were talking of presenting to the Empire, and even a Sikh cannot rise to the rank of a Lieutenant in the Army. But Mr. Mitra's practical point is that India's grievances on this score are bound to be accentuated by the transfer of the capital to Delhi. Calcutta was the British capital of British India created by British enterprise. Removing to Delhi challenges comparison with the empires that have gone before and especially with that Moghul Empire which still holds so large a place in the popular imagination, and Mr. Mitra is not the only person who fears that it is British Delhi that will suffer by the comparison. To the Moslem, Delhi stands for military glory, and the Hindu also remembers that in the days of Moghul Delhi, Mohammedan emperors married Hindu wives and also employed Hindu officers for the highest places both in the army and in civil appointments. The Nizam follows the same policy in choosing his officers to-day. So the British statesman will have a harder task before him at Delhi, where there is so much to revive Indian memories that will not be favourable to the consolidation of the British Empire. The suggestion that the failure to detect the thrower of the bomb that was meant to kill the Viceroy was due to "a sudden acceleration of collective sentiment aroused by the establishment of the British capital at Delhi" seems somewhat far-fetched; nor does the connection between the same administrative change and the adhesion of the Moslem League to the National Congress seem so direct to us as it does to Mr. Mitra. But he has some solid ground for his plea that Delhi stands for the unification of Hindu and Mohammedan sentiment, and that the British must do more than they have done in the past to conciliate both. Mr. Mitra is quite prepared to point out how this is to be done. Give the youth of India full scope for their military ambition. Let there be a flag for India. And give Indian princes a place in the House of Lords, for one of the common mistakes that Britons make about India is to forget that it is essentially an aristocratic and not a democratic country.

Another important chapter discusses Sir Valentine Chirol's book on "Indian Unrest." Mr. Mitra is grateful to Sir Valentine for his advocacy of religious education, but he questions the accuracy of his assertions that the seditious movement began with the Maratha Brahmins and that the Brahmins have all along been and still are its principal organisers. He also thinks that Sir Valentine exaggerates the lack of sympathy between Hindus and Mohammedans. Mr. Mitra believes that we must go further back than to Mr. Tilak to find the source of disaffection, that it sprang some decades ago from the personal ill-treatment of natives by Englishmen, which was utilized for political purposes and also probably magnified by the vernacular press. It is just a manifestation of racial hatred, for which some members of the dominant race should be held responsible. Turning to the commercial situation, Mr. Mitra finds the Indian position of affairs, the grievances, drawbacks and difficulties, so well expounded in the Presidential Address delivered by Sir Rajendra Mookerjee at the Allahabad Industrial Conference in 1910 that he reproduces it entire. Technical colleges, the raising of capital at present lying idle, the promotion of joint-stock companies under legislative protection, Protection (with the big P) for local manufactures, the building of numerous feeder railways with Indian money, education (95 per cent. of the Indian population cannot read ; 95 per cent. of the Japanese can) and more attention to scientific agriculture,—these are the main points of the address. Mr. Mitra does not tell us whether he agrees with Sir Rajendra's Protection theories or not, but he says that the facts must be faced, and the facts are that it is not the policy of Britain to grant bounties or preferential duties, and that it would take more pressure than India is able to exert to induce the Government to change its mind. Mr. Mitra is at one with Sir Rajendra in his plea that nothing should be said or done to discourage the investment of British capital in Indian enterprises ; on the contrary its co-operation in developing the resources of the country should be welcomed. A great deal of spade work remains to be done, he wisely says, before India can dream of industrial rivalry with the Western nations.

One chapter is a plea for the construction of a port for ocean liners in Cochin. As things are, there is a good natural harbour, a large basin of deep water, due to a back water at the mouth of a river ; but there is also a bar

which prevents the approach of large vessels. If a good harbour were made it would be the only refuge for large vessels between Bombay and Colombo, and it would save ten to twelve days between Madras and London. Financial adjustments with the State of Cochin would be necessary, and therein, rather than in the engineering department, the difficulty seems to lie.

The chapter on the Indian Press is of special interest at a time when the Press laws are again under discussion, as they have been, off and on, for a hundred years and more. Truly, Indian unrest is no new thing, but it used to be the European editor who had to be deported. In the early days of British rule in Bengal, if a man wanted a free trip to England, the easiest way to get it was to start a newspaper and abuse the Government. If newspaper proprietors wished to indulge in the pleasures of defamation without incurring the risk of deportation, the plan they took was to employ country-born editors, who could not be deported. It was not that the Indian editor and the vernacular press were more loyal in those days, but that they did not exist. The Serampore missionaries were the pioneers in Bengali journalism as in so many other things, and for several decades they were almost alone in the field.

In "Christian and Hindu War Ethics," "The Hindu Drama," "Christianity in Hinduism," "Hindu Medicine," "Hindu Mind Training," Mr. Mitra appears as a lover of the literature of his native land, who rejoices to find how much that is best in the science and religion of the West has been anticipated by his own ancestors many thousand years ago. But it does not follow that because the Hindu surgeons counted 300 to 360 bones in the human body, while the Western anatomist stops short at about 200, that the Indian system of medicine is superior to the European. The question is, which is the more accurate? and on this ground the modern anatomist is quite prepared to meet his Aryan brother. There is no doubt, however, that the East was ahead of the West in many departments of medical science as in philosophy and literature.

An historical chapter towards the end affords the means of finding out the kind of men, Eastern and Western, who appeal to our author's heart. He singles out three European officials as distinguished above all others since 1857 for the qualities that make for statesmanship. They are: Sir John Strachey, Sir Richard Temple, and Sir Alfred Lyall. He commends the last specially for his careful and patient interpretation of

Indian thought and sentiment. The outstanding Indians have been two Hindus. Sir Dinkar Rao, whose name is always associated with Gwalior, and Sir Madhava Rao, who made his mark and left it on Baroda, and one a Mohammedan, Sir Salar Jung, who did so much for Hyderabad. There are other chapters of more local interest, such as that which discusses the Sikh Anand Marriage Act, while the final chapter on the Balkan War deals with a phase of contemporary politics. In it the writer recurs to the matter of the transfer of the capital to Delhi, maintaining that the less stable equilibrium which it is likely to produce in India is an additional reason why the Indian Government, and the Imperial Government too, should preserve a position of neutrality in disputes between Moslems and Christians in the West. After all the book is not so psychological as the preface led us to expect. There is hardly anything in it, in fact, which an ordinary Briton cannot understand, and Mr. Mitra may feel assured that as long as he writes books in the same spirit he will find plenty of us who will read him, if not always with agreement, for the most part with pleasure. A good index is a point about the book that deserves commendation.

J. M. M.

OUR TASK IN INDIA.—By Bernard Lucas. (Macmillan and Co.)

This is a book which is bound to provoke a great deal of controversy, not so much because of the newness of the ideas as because of the insistence with which their immediate application is demanded. There are many who would regard these ideas as adequately describing a true ideal, worthy of consideration at a later stage, but who would hesitate to allow their present applicability. Yet the writer has made out a good case for the urgent importance of his views, however much we may demur to some of his presuppositions and conclusions.

His main problem is indicated by the sub-title of the book, "Shall we proselytize Hindus or evangelize India?" The characteristics of the proselytist are that he desires simply the advancement of his own religion, that he detaches the convert from the religious thought and feeling in which he has been brought up, and that he insists upon the unreserved acceptance of the new creed with all its detail of dogma, ritual and organization. Evangelism

means, on the other hand, power to minister to the spiritual needs of man, a recognition of the working of the Divine Spirit in the midst of the so-called heathen religions, a sense of the value of the race as well as the individual, and an avoidance of all attempts merely to substitute one form of intellectual conception or organization for another.

The author is convinced that the root of failure in the past has been our almost exclusive attention to proselytizing methods. We have concentrated upon individuals and have detached them from their environment, yet "it is even possible to conceive of a salvation of the souls of individual Hindus and a losing of the soul of India." We have been too fond of our particular "ism" and too much on our guard against heterodoxy, forgetful of the fact that the only real sign of heterodoxy is failure to evoke a higher and deeper life. Our greatest successes have been amongst the non-Aryans, because the defects of proselytism are less apparent where there is less religious organization. But the heart of India has remained untouched by our proselytizing efforts—the converts from caste people have been very few. Some have argued from this that we should abandon our missionary enterprise amongst the caste people and concentrate on the aboriginals. Mr. Lucas is absolutely opposed to any such idea. He holds that "to abandon our ministry to the caste people is not only to incur the charge of cowardice in the face of the enemy, it is to be absolutely disloyal to Christ Himself." Our want of success is merely a sign that we must modify our methods, and look in other directions for tokens of success. As soon as we do this we shall exchange our pessimism for optimism. We shall find that however much proselytism has failed, the ministry of Christianity to the heart and life of India has assuredly not failed. "The moment we get away from the utterly inadequate conception of the missionary enterprise usually associated with Indian Missions, and concentrate our thought on the influence of Christianity on the life of India, instead of defeat and failure, we are confronted with triumph and success. There is not a single department of life or a single vital influence in India to-day which has not been touched into newness of life by a ministry which is directly attributable to Jesus Christ." The author has much commendation for the work of healing and education: he urges only that we should put these activities themselves in the forefront and should not regard them as instruments of proselytism. We must enter into the current

of Indian religious thought and make India conscious of her own need. Then we shall find that the need is of such a kind as may be satisfied by Christ and not by Christian dogma. Too often we offer the theological conception before the need is awakened, and we are surprised at refusal. The author contends that the method of evangelism as he defines it is the method not only of Paul but of Christ Himself. He cites several instances from Christ's own ministry in which He obviously made no attempt to introduce a new doctrine of God and the Divine relation to man, but simply awakened and ministered to a spiritual need. Mr. Lucas sees no reason why the method of Christ should not be our method. He refuses to allow the distinction that Jesus did not come to preach the Gospel but to make a Gospel for men to preach. We cannot however so readily give up this distinction. Christ was himself the spiritual power. In His presence intellectual presentation was unnecessary. But we have the treasure in earthen vessels. We must use words and intellectual forms to convey our message. Otherwise we are without influence. We grant readily that our intellectual conceptions are inadequate, but we do not admit, as Mr. Lucas contends, that these intellectual conceptions are altogether to be avoided. The great defect of this powerful book, indeed, seems just to lie in this anti-intellectualism. The author is very severe on the attempt to replace Hindu intellectual error by Christian conceptions of truth. He urges us to discover the religious need which is behind the mistaken conception and satisfy that need. But how is an intellectual man to be fully satisfied unless his satisfaction while not entirely intellectual includes intellectual satisfaction. The replacing of an erroneous intellectual conception by a more adequate conception may be just the carrying out of the method the author himself advocates and should, therefore, not be subjected to such severe condemnation. The vessels of intellectual conception may be earthen, but we cannot get on without them. Altogether there seems to be in this book an excessive fear of intellectual formulation. But we may ask, How are we to gain sufficient attention for the Christian message unless we can state it with a certain amount of definiteness? We doubt whether Paul himself, who is taken by the author as typical of the evangelist as distinct from the proselytist, would have considered that he had a message at all if it had to be left in the vague form which the author commends. It is certainly true that the Christianity of India must develop

along the lines of Indian thought, but we must make sure that it is Christianity. If the result of the whole process is to be called Christianity, Christianity must have a definite contribution to make to the thought-world of India. But any such definite contribution must be capable of formulation, and that contribution must come from the side of the more experienced Christianity. We cannot leave everything to vague unconscious evolution towards Christianity. We are called to be fellow-workers with Christ and we cannot work without using our minds in the communication of truth.

For much the same reasons we would differ somewhat from Mr. Lucas in his attitude to baptism. He seems to regard baptism as almost a calamity in the majority of instances, urging that it detaches a convert from his community and puts an end to his influence upon that community. We are in thorough agreement with the condemnation of premature baptism but we would urge that baptism may sometimes mean the salvation of the convert. If he is fully conscious that his need has been met by Christ, common honesty ought to make him willing to confess this satisfaction. If he is unwilling to confess, this means that he is still taking up a more or less indifferent and external attitude to the truth and has not grappled it to his soul. Further, public confession may be the only means by which he can share his new found faith with others. He will have to choose between barren concealment and effectiveness through public confession, and baptism is simply the choice of the latter method.

Yet, notwithstanding all criticisms, most of us will be prepared to agree with Mr. Lucas in the main contention of his book. However necessary intellectual formulation may be, we shall agree that none of our statements must be regarded as final. We shall agree also that there is unnecessary detachment of the convert from his own community and unnecessarily close association of the Indian Church with the ecclesiastical organizations of the West. We shall agree with him also in the application he makes of his principle to the question of co-operation and unity. He disapproves both of the idea that we should unite on the highest common factor principle or on points only on which there is no controversy. He condemns equally the Higher Synthetic principle or the idea that the church organization of the future should be a complex of the forms of all the churches, which should then be accepted by all the members of the united church. He argues that

here will always be and there must always be diversity, and that it is the condition of life. We are one in faith and purpose but not one in doctrine. If we have grasped the main distinction of the book, we shall not desire this unity in doctrine or in organization.

Mr. Lucas has some wise words in regard to Christian literature. He holds that there has been too much translation and not sufficient effort to produce indigenous literature. We must keep in closer contact with Indian thought. "We need literature which aims at presenting to the Hindu religious soul expositions of Christian truth which are not so much intellectual as vital and vitalizing, and above all, which are not isolated from his religious thought and aspiration, but intimately and sympathetically related. There are rich mines of religious thought and feeling in the vernacular literature of India which have hardly been prospected and which present points of contact between Hindu and Christian religious experience which are of priceless value. Let anyone note the appreciation and keen relish with which the common people listen to a reference to some religious truth or aspiration which certain of their own poets have expressed and he will realize what possibilities are open in this direction."

Our author longs for a heretic in the Indian Church—and so do we, for the appearance of one or two healthy heretics would ensure that truth would not be simply borrowed in blocks from the outside but would be thought over in the mind of the Indian convert himself. The exposition of Christian truth would then become an unfolding of the workings of his *own* thought and so would of necessity have an indigenous character.

This most valuable book closes with a few observations regarding the Home Constituency. Mr. Lucas recognizes with thankfulness that the emphasis is now laid not so much on the *interest* of missionary work as upon the *responsibility* of the more enlightened for the less enlightened, and the responsibility not only for individuals but for races. That the discharge of this responsibility is urgent is shown in an early part of the book where the author points out that unless Indian religious thought is led onwards it will degenerate. With the improvement of communications Eastern and Western forms of faith are coming rapidly into close contact with one another. What contact of degenerate forms means the surroundings of many seaports and the low morality of the foreign quarter in many a western city, shows strikingly enough.

This book will do much to secure that the contact shall mean purification and regeneration by the spirit of Christ. It is not enough to patronize Eastern faiths in London or Edinburgh drawing rooms. We must recognize that these faiths are moving onwards either to life or to death and we must help them on the way towards life.

W. S. U.

THE COCHIN TRIBES AND CASTES, VOL. II.—

By L. K. Anantha Krishna Iyer, B.A., Superintendent of Ethnography, Cochin State. (Higginbotham and Co., Madras.)

The earlier volume described the hill and jungle tribes and other low castes of the State in the ascending order of social status. It had a special interest on that account, as serving to preserve facts about people that are rapidly disappearing. The introduction to this volume is written by Dr. A. C. Haddon, the well-known authority in anthropology whose notes in that introduction help the reader to understand some of the strange old-world customs that are observed among these tribes. The volume deals with groups higher in the scale than those already dealt with. The Cochin State probably possesses an assemblage of tribes and castes which is without parallel elsewhere in an area of equal size. The first five chapters, as was to be expected, deal with the Nayars in a full and no doubt accurate fashion. Smaller castes are dealt with in ccvi. and vii., the Kshatriyas in c., viii., the Brahmans ccix. —xiii., non-indigenous castes in cxiv., Jews in cxv., Syrian Christians in cxvi. and Jonatean Mapillas in cxvii. The book closes with a full index.

It would serve little purpose to select and comment on any of the endless number of customs that are here recorded. Mr. Iyer is known as a learned and thorough student of Ethnography and here he is at home. It were much to be desired that many more of his countrymen turned their attention to this most interesting and useful study, not after a speculative fashion, but to sift and record the facts that are all around them, which no foreigner is likely to be able to correctly understand. A feature in this volume is the abundance and excellence of the illustrations, and the whole get-up of the book is excellent. Mr. Iyer has again proved himself worthy of the many learned societies of which he is a member.

J. W.

ALLAN OCTAVIAN HUME, C.B.—By Sir William Wedderburn, Bart. (F. Fisher Unwin.—Indian Edition. 2s. G. A. Natesan, Madras. pp. 182.)

This is a book of extraordinary interest and may be commended to every student of Indian History and development even if he is not likely to agree with the views of either the writer or the subject of the book. There is a lack of precision and order in the presentation of the facts of the life. The years of Hume's work in India are briefly and well sketched, but from 1882 when he retired from the Indian Civil Service it is only by severe application that one can discover his movements until he returned finally to England in 1894. Allan Octavian Hume joined the Civil Service in 1849 and by the year 1867 had passed through every stage of the Mofussil officer's life. From 1867 to 1870 he was Commissioner of Customs and successfully negotiated the treaties with Native States so as to make possible the removal of the great barrier that ran across India to bar out native salt. From 1870 to 1879 he was a Secretary of the Indian Government and so uncomfortable a one that he had to be removed. In 1882 he resigned the service and began what many would regard as the work of his life.

It is not necessary to accept the author's views either as to Hume's personality or political creed in order to agree with him as to the greatness of the man and his wisdom with regard to India. It is plain that he was a man of enormous energy, perfect honesty and unfailing courage. In that he was his father's son. Added to these qualities he was perfectly loyal to the service in which he worked, and, remembering the men with whom he had to work, there is a strong *a priori* case for believing that he was *not* in the wrong when he had to give up his Secretaryship. It is not the first nor last time that the Indian Government has feared to meet trenchant criticism even when regularly and loyally offered. In this case a valued servant was sacrificed, in other cases the Government has found it convenient to isolate itself in Simla or Delhi. The book reminds us how far we have travelled since the days of the first Congress in 1885 when Mr. W. C. Bonnerjee moved "the famous resolution in favour of the reform and expansion of the Supreme and existing Local Legislative Councils, by the admission of a considerable proportion of elected members." In 1907 Lord Morley in writing to Mr. Hume said: "I know well your

historic place in the evolution of Indian policy." In his famous controversy with Sir Auckland Colvin, Mr. Hume urged that so far was he from being too precipitate in urging reform that he feared he was too late. He knew of this extraordinary unrest and movements that were taking place throughout India as no Government official could know and he was afraid that even then the reforms that were granted only 20 years later would not suffice. As one reads the pages on Indian religious devotees and gathers together the instances in which men of high standing and wide knowledge recognized the value of the Indian National Congress, and dispassionately tries to reckon up the values of the men engaged by Mr. Hume in his great crusade, there must arise a doubt as to whether British rule in India for these 20 years was well served. Here was an able and loyal servant who knew the rule and the people ruled as no Viceroy or Lieutenant-Governor could know them, speaking of unrest and anarchy and the means to combat them, and only now are we seeking to carry out his methods.

His interests were of the widest. One great interest was ornithology in which he became an expert. His house, Rainey Castle in Simla, became a museum into which he gathered 63,000 bird skins and 19,000 eggs, not to speak of trophies of the chase innumerable. He spent great sums of money in collecting these, and had amassed volumes of notes from all parts of India, preparatory to writing. The notes were stolen and probably destroyed while he was absent from Simla during the winter of 1884. This loss was irreparable and in 1891 he handed over his great collection to the British Museum. A naturalist would probably agree that his work on the birds and game of India was sufficient of itself to occupy an active man's lifetime.

J. W.

EPOCHS OF CIVILIZATION.—By Pramatha Nath Bose, B.Sc. (Lond.) (W. Newman and Co., Calcutta. 1913.)

The author states his proposition in a simple and straightforward way as follows:—Man presents three states—the *animal* in which he is physically and emotionally indistinguishable from animals, the *intermediate* in which the intensity of his intellectual development separates him from animals, the distinctly *human* in which his spiritual and

moral faculties isolate him from animals. These stages are shown in the infancy, youth and manhood of the individual and are reproduced in the history of communities. These three stages constitute an epoch of human progress. Of these epochs there have been three, from 6,000 to 2,000 B. C. the civilizations of Egypt, Babylonia and China, from 2,000 B. C. to 700 A. D. the civilizations of India, Greece, Persia, from 700 A. D. to the present day Western civilization. In the second chapter the factors of civilization are classified as internal and external. Under the former are the desire for the superfluous, religion, the cosmic and non-cosmic or ethical processes; under the latter physical environment, aboriginal influences, and the influence of Government. The third chapter deals with long lived and short lived civilizations and the causes producing such. The conclusion is that where there is a fair balance between the cosmic and ethical processes at work in any civilization it is likely to last. It is also noted that isolation tends to long continued existence. The three remaining chapters deal with the three epochs and their three stages, and the book closes with a synoptical table of epochs and stages and a useful index.

The author has his history most thoroughly at hand and his scientific training is evident not only in his illustrations but also in the whole classification which he uses. Such a classification may serve in geology, but it is doubtful whether it helps us far in such a complex subject as civilization. It is in fact far too simple to serve. The author undoubtedly handles his historical facts with skill, but many of his facts might by a little different narration be made to support a very different proposition. It is in short very doubtful whether the time has yet come for anything more than approximations to general statements on this indefinite and debateable subject. The interest in this attempt is that it has been made by one trained in scientific method, who never fails to make plain what he means.

J. W.

THE HOROSCOPE.—By John Law. (Thacker, Spink and Co.)

"The Horoscope" is the story of two brothers, descendants of the royal house of Kandy. One of them is a sensitive, affectionate girlish lad, who becomes a Buddhist priest. The other becomes anglicized and leads a fast life in

Colombo. The characters are well drawn, but the story is rather lacking in incident, and what incident there is is somewhat improbable. The horoscope is not really necessary to the story except in so far as it serves to symbolize the Fatalism of the East, which is very prominent. A fine feeling for Nature breathes through the book.

There are some very striking sketches of the homely events of native life. Throughout, there is shown an intimate knowledge of the Oriental mind, such as can only have been gained by deep sympathy and keen study. The attitude of the Kandyan Chief to British rule is described in a clear and striking way.

But the most real value of the book is on its religious side. It contains some beautiful Buddhist stories and a deeply interesting description of the life of a Buddhist priest. What the real lesson of the story is meant to be, is not very clear. The power and the beauty of Buddhism are very prominent while Christianity is represented by a ridiculous claret-drinking pompous bishop. "The Englishmen mean very well," one speaker says, "but it is a terrible thing to undermine a boy's faith in the religion of his forefathers in the hope of putting another religion in its place." On the other hand, the essential selfishness of Buddhism is pointed out.

The book is rather marred by misprints. The cover, with its Arabian-night design, is attractive and appropriate.

W. D.

MAZDAISM IN THE LIGHT OF VISHNUISM.—

By A. Govindacharya Svāmin, M.R.A.S., M.R.S.A., etc. (The G. T. A. Press, Mysore.)

This is a short treatise in the form of an essay of four discourses on the Parsi religion, Zoroastrianism. The book is a welcome contribution inasmuch as it comes from the pen of an Indian who does not labour under the serious disadvantages which affect western research in oriental topics. The author deals with his subject from the point of view of a philologist as well as that of a critic of Zend texts. The Zoroastrian duality of Good and Evil Principles (Ahuramazda and Ahriman) is explained and shown to be a false exposition of Parsi theology. The evil principle does not exist absolutely, but has its origin in the mind of man; and Zoroastrianism, he thinks, should be regarded as a kind of monotheism. Numerous analogies, chiefly

philological; and parallels of thought are adduced to establish that Mazdaism is Vishnuism or Vaishnavism shorn of its refinements, that "the opposite sentiment, fear, is elaborated *in excelsis* in the Avestan scriptures, whereas in Vishnuism, love, the opposite of fear, ripens into its, *i.e.*, ecstatic crisis," and that "dread, insensibly passing through awe, ends in love."

The book, as its preface points out, is the second attempt of its kind (the first being that of Mr. Rajaram Ramakrishna Bhagavat of Bombay) and will, we hope, stimulate active research "into the unknown and mysterious regions of Zoroastrianism."

K. D. C.

KASHINATH TRIMBAK TELANG.—The Man and His Times. By Vasant N. Naik, M.A. (G. A. Natesan and Co., Madras. Price Re. 1. Pages 160.)

This is an admirable life story, in a short compass, of Kashinath Trimbak Telang, one of those eminent Indians who have helped to make modern India what it is. Mr. Naik gives an interesting account of Telang as a brilliant scholar, a steady lawyer, a sober judge, a conservative social reformer, a cultured literary man and, finally, an enthusiastic and sincere public leader. The memoir is written with an appreciative insight in a clear and simple style, interspersed with a vivid account of the stirring times in which Mr. Telang lived and worked. Though Mr. Telang's practical conservatism is sometimes too strong for his theoretical progressiveness, he is doubtless one of India's great men from whom inspiration for noble aims and high ideals can be derived; and Messrs. G. A. Natesan and Co., by publishing this biography, have deserved the congratulations of the patriotic Indian public.

K. D. C.

CARTOONS FROM HINDI PUNCH.—Edited by Babjorji Nowrosji.

This selection of cartoons is well up to the usual level and affords, after the manner of "picture politics," a comparatively clear indication of the manner in which certain topics of the day are received by the Indian mind. Most of the pictures deal with the doings and sayings of the Indian political leaders, but there are many references to

the measures of Government officials and to questions of world politics, as *e.g.*, the Balkan war and the treatment of Indians in South Africa. The tone throughout is critical but, on the whole, moderate. The drawings are somewhat stiff and the humour a trifle forced. The publication reminds us rather of papers like the German "Simplicissimus" than of the "London Charivari."

CONCENTRATION.—By Ernest Wood. (Theosophical Publishing House.)

The central idea of this book is the value of concentration in regard to all kinds of success in life. So far as human progress is the consequence of human activity it has followed upon control of desires and concentration of mind. The author is careful to point out that concentration does not mean narrowness, but the inspiration of the whole of life by one purpose. It means to dominate the mind "by a mood, impressed upon it, by the will." Various practical suggestions for the improvement of concentration are given, based upon a fairly adequate psychological knowledge, but the ideal which is aimed at seems to be rather vacuity than fullness of mind, despite all the author's protest against narrowness and his emphasis upon the importance of a constraining positive purpose.

THE THEOSOPHY OF MRS. BESANT.

This is, in the main, a reprint of a paper read before the Madras Missionary Conference by the Rev. E. W. Thompson. It gives an account of the leading doctrines of Theosophy and also of certain recent developments in the Theosophical Society. The result of the investigation seems to be uncompromising condemnation. The conclusion of the author is that "Theosophic occultism is an enemy to human progress and general well-being" and he views almost with horror the proposal to establish an educational trust which will give the Theosophists influence over the education of the young. His views are shared by the Bishop of Madras and representatives of all the leading missions in South India. In the "Foreword," to which they append their names, they say: "It has been so constantly stated by Mrs. Besant and her followers in England and India that

the system of Theosophic occultism, of which she is the foremost exponent, is not only consistent with Christianity but makes the adherents better Christians than they were before, that we feel it our duty to state plainly and publicly that the Theosophy of Mrs. Besant is utterly opposed to the truths and moral principles of Christianity." Those who are impressed by arguments in favour of Theosophy will surely be made to pause and consider their ways by a protest of such weight and earnestness as this.

MRS. BESANT'S THEOSOPHY—A REPLY TO THE MADRAS MISSIONARY CONFERENCE.

—By Johan Van Manen. (Theosophical Publishing House.)

This pamphlet is a very outspoken and sometimes violent reply to the pamphlet noticed just above. The reply is a mixture of statements as to liberal Christianity, quotations from learned theologians about religion, the Church and the Scriptures, extracts from Mrs. Besant's writings, with appendices reporting various recent trials which have taken place in England. The reply seems to be an ignoring of the main question at issue. The author is undoubtedly right in his contention that Mrs. Besant explicitly sympathizes with much recent liberal writing about Christians, but the point under discussion is as regards the main tendency of Theosophy, and the author does not prove that this is in accordance with the generally accepted teaching of Christianity.

LEGENDS AND TALES.—By Annie Besant. (Theosophical Publishing House.)

This is a collection of short tales written for young people in order that they may learn of "high thoughts and noble deeds." The tales are taken from many mythologies and many lands and are all beautifully told. It seems a pity, however, that the representatives of Christianity who appear in the pages are for the most part bigoted priests occupied in the torturing and slaying of helpless and innocent victims. This selective bias is hardly consistent with the broad-minded tolerance to which Theosophy so frequently lays claim.

BEHIND THE SCENES IN THE SCHOOLROOM.—

By Florence Montgomery. (Macmillan's Empire Library.)

This story is a working out of the same theme as that dealt with in "Misunderstood," the book by which Miss Florence Montgomery is best known, and is written in the same spirit of devotion to children, understanding of their joys and woes, and resentment at the unnecessary suffering which falls to their share even in cases where the world would regard them as having been born with a silver spoon in their mouths.

Her resentment is toward the woman, unworthy of motherhood, who, possessing lovely and intelligent children, takes only a spasmodic and capricious interest in them and makes no allowances for difference of temperament, being in fact ignorant of the real character of her own daughters. She parades them, when the fancy takes her, before her friends; has herself photographed and painted with them; and these pictures, printed in the society papers, give her the reputation of a happy and devoted mother. The picturesque side of motherhood appeals to her, but she has no interest in its duties and cares. She spoils the natural simplicity and sweetness of the children in order to gratify her own vanity, using them merely as a setting for her own beauty. At other times she neglects them and they are left entirely to nurses and governesses who may or may not be fit for the trust.

The disastrous results of this unmotherlike treatment are worked out with sympathy and fidelity. A real insight into child psychology is shown, and the novel, though taking the form of a pretty picture of childhood and a simple love story, is really a pamphlet written in defence of the children of those wealthy and well-born parents who have abandoned the duties of the home for the claims of public and social life.

THE CUSTOM OF THE COUNTRY.—By Edith Wharton. (Macmillan's Colonial Library.)

This novel shows a considerable amount of insight into human nature and a distinct power of grouping characters and incidents so as to work out one idea. It might be called "a study in unsatisfied desire." The "Custom of the Country" is, unfortunately, the ease with which

marriages seem to be unmade in America. The heroine is a somewhat dull person, whose ruling passion is social ambition, and who is consumed by a restlessness of dissatisfaction. As soon as she has climbed to one stage of society prominence, she wishes to climb higher, and is ready to sacrifice anyone who may stand in her way. Twice over, at least, she marries the wrong man and then abandons him, on the slightest pretext, because he does not give her all that she wants in the shape of social triumphs. One of her victims belongs to the older aristocracy of New York. He has artistic and literary inclinations, but has to sacrifice them in order to satisfy her gross materialism. Another victim is a scion of the nobility of France whose pride of family suffers an irreparable blow. The heroine is a woman of one idea and, just because of this, fails to interest us throughout the novel. The finer natures are more sympathetically described and the tragedy of their gradual destruction is all the more real. The main idea of the book is vividly expressed in the last incident. The heroine desires her husband to apply for appointment as ambassador, but he ruthlessly tells her her career has made that impossible for him. So the end is disappointment. "She could never be an ambassador's wife; and, as she advanced to welcome her first guest, she said to herself that it was the one part she was really made for."

HERE ARE LADIES.—By James Stephens. (Macmillan and Co.)

This collection of short stories and sketches is of the kind one might expect from the author of "The Crock of Gold." We are treated to a mixture of shrewd observation, rollicking humour and extravagant fantasy. The fantasy sometimes turns out to be the most profound truth. The author seems to have a fondness for the mystic number three. The first set of stories is about "three heavy husbands" and how they were much too serious for married life. Then we are told about "three women who wept," their sorrow being not without cause; about "three angry people" and "three young wives,"—until when we come to a title such as "There is a tavern in the town," we wonder why there were not three taverns. The lonely tavern is the scene of the incoherent moralizing of an old man who is a delightful compound of sense and

nonsense. He discusses, amongst other things, smoking and grasshoppers. He holds that people who do not smoke are usually of a sour and unsociable disposition. Men with mouse-coloured hair do not smoke at all. They collect postage stamps and sea-shells and are usually to be found sitting round a fire with other girls and seeking for replies to such questions as, "When is a door not a door?" He is interested by the method of speech peculiar to grasshoppers, — "they convey their ideas to each other by rubbing their hind legs together." He wishes that we could be trained to converse in so majestic a manner and looks forward to the time when it will be reported of a certain politician that he "had rubbed his legs together for three hours at the Treasury Bench and was removed frothing at the feet."

PERIODICALS.

THE LONDON QUARTERLY REVIEW.—January 1914.

One of the most interesting articles in this number is that by Professor Mackintosh on "Ritschlianism Old and New." Perhaps no one has had a more profound influence on the form and spirit of modern religious thought than Ritschl, and Professor Mackintosh sympathetically analyses and expounds the fundamental principles on which Ritschl's influence rests. It was he "who accomplished the expulsion of speculative rationalism from theology," "who planted faith on the firm rock of historic fact," and taught that theology could be written only from the standpoint of the specifically Christian mind.

Another notable article is that by Principal Garvie on "The Freedom of Christian Thought," in the first part of which he criticizes very severely the widely-read volume on the "Freedom of Thought" by Professor Bury in the Home University Series. He accuses Professor Bury of prejudice and intolerance, "the more blame-worthy in a work professing to justify liberty of thought." "We look in vain in the pages of this volume for the appreciation of any higher moral value (not to speak of religious significance) in Christianity than in paganism; for any recognition that the less tolerance of Christianity was a consequence, if neither necessary nor legitimate, of greater moral earnestness and religious zeal; for any admission that the 'lurid policy of coercion which the

Christian Church adopted' was inconsistent with the spirit of the founder." Dr. Garvie maintains that the whole argument is vitiated by an assumed anti-Christian bias, which does not do justice to the Christian position as it is to-day. Dr. Garvie in the rest of his article illustrates, by means of references to the recent book by Professor W. P. Paterson entitled "The Rule of Faith," the position which he holds to be the true one, namely, that even if Christian thought throughout Christendom be not actually free, yet "its ideal is freedom and in its progressive sections the tendency is towards realization of this ideal."

In an article on "The Vicissitudes of the English Novel" T. H. S. Escott sketches and discusses the history of the novel with special reference to the present controversy about the moral obligations of the novelists to the public. His conclusion is optimistic. "Happily the past fortunes of English fiction which have been here followed justify the belief that the bane will provide its own antidote, and that neither the novel, its makers, nor the readers will suffer much from the disease of unhealthy writing, confined within reassuringly narrow limits." At the same time, however, Mr. Escott believes in the value of the censorship.

The number contains several other articles of interest, among which mention may be made of that on "A Poet's Tragedy," in which the Editor gives an appreciation of Francis Thompson, and that on "Augustine as Seen in His Letters" by Dr. Banks.

THE QUARTERLY REVIEW.—January 1914.— (London: John Murray.)

This number is largely political, containing as it does no fewer than six articles of that nature. For the rest the *Review* is much occupied with literary topics.

The first article discusses "The Imperial Naturalization Bill" and the history of the gradual reforms leading up to it. Some difficulty has been experienced with the Canadian Government, but this has been removed, and the writer urges the speedy passage of the necessary legislation by each legislature. The carrying of the bill will, in the words of Mr. Jebb, "undoubtedly mark an important development in the political relationship of the Dominions to Britain."

Mr. R. H. Murray contributes a most readable article on "The Evolution of the Ulsterman," showing how the first colony of English and Scots Protestants came to be planted in the North of Ireland, and tracing the causes that led to the present prosperity of Ulster and the attachment of the Ulsterman to the Union. It is interesting to remember that, in the latter half of the eighteenth century, no one in Ireland was a stronger supporter of free trade and a free Parliament than the Ulsterman, but by the middle of the nineteenth he had become a staunch loyalist. The writer asks why the Belfastman is more attached to the Union than the Corkman, and finds an answer in the fact that "they belong to different races, with different traditions and different ideals."

Mr. Algernon Cecil's article entitled "Some Reflections on Patriotism" is vigorous and unsparing but blindly partisan. For him Conservatism is the true political faith and he apparently sees little or nothing of any value in Liberalism or Socialism.

The much mooted subject of Home Rule for Ireland affords ground for a clear, powerful article written from the Unionist point of view. The writer sees nothing but evil in the Government's scheme, nor would he be content with any whittling-down of the Bill. Moreover, the question is not that of Ulster or even of Home Rule in itself, but of the validity of any legislation under the Parliament Act. To many, some of the statements made will appear wild and hare-brained. He advocates armed resistance in Ulster and the destruction of the Government, on the part of the Unionists, by "forcible and extra-constitutional measures." His proposal that the settlement of a revised Constitution for the United Kingdom should be left to a special Convention is surely ill-conceived.

A very fresh article is that by Mr. Leslie Johnston on "Modern Mysticism: Some Prophets and Poets." After two or three pages of introduction on the present "mystical revival," the causes that have led to it and the difficulty of defining mysticism satisfactorily, the writer proceeds to an examination of several modern mystics whom he calls "masters in the religious art." The faith of Francis Thompson, Rabindra Nath Tagore and "Michael Fairless" is indicated with conciseness and in a finely critical spirit. A feature of all these three is the immanent type of their religious experience. The danger here is that the transcendental view of God will disappear altogether and their religions amount to nothing more than pantheism.

Another common feature is their love of children, and it is especially interesting to find this emphasized as part of religion in the poems of the Eastern mystic. Unfortunately some of the features in the modern reaction are far from commendable. Sin and evil are not emphasized as positive realities, and this has produced a result in the mystic's view of God. He is a God of Love but can show no wrath. Obviously, such teaching is pernicious for the ordinary man and requires the most strenuous checking. The writer concludes by an examination of how much is really common to these writers in their mysticism.

Other articles worthy of special attention are "St. Paul" by the Dean of St. Paul's and "Martin Bucer and the Reformation" by Principal Lindsay.

THE MONIST.—January 1914.

The usual level of this journal does not seem to be attained in this number, but there are some interesting and valuable articles. Mr. Bertrand Russell has an elaborate essay upon the nature of experience, and makes certain analyses which are intended to be introductory to the discussion of epistemological problems in a later number. Mr. Henke writes in an interesting manner on a Chinese idealist of the fifteenth century, named Wang Yang Ming, whose emphasis upon intuition would have delighted certain Indian philosophers. The most important article is by Professor Garbe on "Christian Elements in Later Krishnaism." He occupies an exceedingly well supported middle position, refusing to admit Christian influence where native causes can be assigned, and yet finding unmistakable evidence of it in many of the later stories of Krishna's life. He also holds that Ramanuja was distinctly influenced by the Nestorian Christianity of St. Thome, near Madras. A more important conclusion is that the *Ramayana* of Tulsidas is full of Christian influence.

THE THEOSOPHICAL PATH.—December 1913.

The issue for December 1913 contains a well-illustrated article on Vandyke. A somewhat rambling disquisition on "Theosophy and Christian Theology" points out the close connection between Gnosticism and Theosophy.

Professor Deussen is quoted as an authority for the close connection of the Upanishads and Christian doctrine, but there seems to be a fundamental contradiction between the Christian ideal of Communion with the Divine and the Vedantic ideal of Identity. This divergence Professor Deussen and many others have overlooked. The author of the article seems also to be unaware of the fact that for the modern Christian Consciousness there no longer exists any opposition between Religion and Science.

THE EDUCATIONAL REVIEW.—December 1913, January, February 1914. (Madras : Srinivasa Varadachari and Co.)

Teachers and educationalists generally will find all these issues interesting and useful. The articles are well selected and it is not often that one finds in a journal, where most of the contributors are Indians, so high a standard of English maintained. We notice fewer misprints than have sometimes marred the pages of the *Review*, but we have still to complain that a periodical which entitles itself "A Monthly Record for India" should include so few contributors outside the Madras Presidency.

The December number contains a detailed syllabus for the study of Light, which should prove valuable to teachers. The same writer contributes a similar syllabus for Magnetism and Electricity to the January number. In the former number the Convocation Address of the Hon'ble Dr. Sundar Lal, Vice-Chancellor of Allahabad University, is printed.

A new feature has been introduced with the January issue in a series of notes under the heading "Educational Topics." The editor hopes to make this a monthly feature. The Reviews in this number are particularly good.

Evidence of the growing interest in commercial education throughout India is afforded by the reprint, in the February number, of an article on "Commerce and the Universities" from the pen of the Principal of Birmingham University, and by such articles as "Handwork in Schools," "The Teaching of Shorthand in Secondary Schools," and others scattered throughout these three numbers. Rev. Dr. Ewing's excellent Convocation Address at the Punjab University is wisely included in the *Review* for February.

HINDUSTAN REVIEW.—December 1913 and January 1914.

In the *Hindustan Review* for December, 1913, Sir Protul Chandra Chatterjee, a Bengali who, as Judge of the Punjab Chief Court, has lived during the greater part of his career outside Bengal, discusses the question of Bengal and Political Agitation. The picture he draws is certainly not enlivening but neither is it altogether beside the mark. Agitation, he maintains, has served to deprive India of many valuable privileges. He sees, too, in what he calls the degradation of Calcutta, as well as in the special privileges granted to the Mohammedans further evidence of the adverse effects of the activity of the Hindu politician. In certain respects one feels that there is an element of exaggeration in Sir Protul's view, but his practical conclusion is an eminently sane one. He considers that politics bulk too largely in the eye of the Bengali. "The social and economic conditions of the people are very bad but we have hitherto practically shut our eyes to them. But there are infinitely more vital matters for consideration than the acquisition of political right." He would have Bengal's idealism turned to practical account and the call which so authoritative and experienced a man as Sir Protul Chandra Chatterjee gives, is not one which ought to be neglected.

In the January Number of the *Review* a Bengali Brahman seeks to answer the question "Is Caste essential to Hinduism?" He maintains that it is caste that gives Hinduism its distinctiveness and yet we find him saying that "Even if caste be abolished, the Hindu race-culture, its spiritual tendencies, and the grand philosophical system of the Hindus will remain and they will constitute the Hinduism of the day." He looks forward to a fusion of castes that will be Provincial rather than Pan-Indian. How this is to be attained is evidently by the elevating of the lower castes—when, however, they elevate themselves. This we should imagine to be the Brahman's point of view. He will not stoop but he will cease to look down upon a fellow-mortal when he can no longer be looked down upon. In this relation it is worth quoting what Sir Protul Chandra Chatterjee says, in the article already referred to, about the duties and responsibilities of the Hindu:—"How can a Hindu demand equal rights with Englishmen when he consigns a fourth or fifth of his co-religionists to a fate worse than that of helots. But for the ægis of the British Government their state would be much worse than it is

now. The educated Bengali does indeed feel for them and pleads for their rights, but he is but a drop in the bucket compared to the bulk of the orthodox people, who regard the condition of the depressed classes as sanctioned by their religion and essential to the proper exercise of it, and the rescuing of them from their present degradation as contrary to that religion." The depressed classes are not to be left to elevate themselves. If the fusion of caste is to mean anything it is the more privileged, upper castes that must help, setting aside, no doubt, an orthodoxy that is, perhaps, the basis of caste as it exists for an object that will make any restricted or selfish idea an impossibility. It seems clear that, unless the original question is answered with a strong affirmative that admits of no contrary, a larger and more fundamental question is raised.

The two articles here referred to are amongst the most attractive in the issues of the *Hindustan Review* before us, though many topics of interest are discussed, the usual special features of the magazine being well maintained. We turned with pleasure to the translation of a short article by Rabindra Nath Tagore on the contrast of European and Indian music. He feels that the former is mixed with actualities whereas the latter moves above the incidents of daily life. European music is romantic with a vigour to which Indian music cannot attain. "Our songs," he says, "speak of the early dawn and the embroidered starry midnight sky of India ; our song is the world-sundered separation pain of dripping rain, and the wordless ecstasy of the deep madness of new spring as it reaches the utmost limit of the forests."

ACKNOWLEDGMENTS.

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THE CALCUTTA REVIEW

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THE BEYOND THAT IS WITHIN.

BY G. F. BARBOUR, D. PHIL.

THERE are many signs that we are approaching one of those periods in the history of the human mind when the thought of the East and of the West come into a contact, which brings the possibility of a great expansion and enrichment for each. The purpose of this paper is to trace in the briefest outline one or two notable distinctions between typically Eastern and Western ways of thought, and thereafter certain lines of convergence which have already come into view. My treatment of the subject has been in large part suggested by two small books which lie before me as I write. One, *Sadhana: The Realization of Life*, contains the lectures recently given at Yale by Rabindranath Tagore. The other, from which I have borrowed my title (*L'Au-dela Interieure* in French), consist of three addresses by Emile Boutroux. M. Boutroux is one of the leaders of that movement towards a new idealism, at once practical and religious, which in different forms has been passing over many lands; and he also stands at the very centre of the intellectual life of France. A cousin of the President of the Republic and of the late M. Henri Poincare, he is a professor of the Sorbonne and has numbered M. Bergson among his pupils.

But before we turn to the synthesis to which these and other books of our time appear to point something

must be said of the difference between the types of thought most characteristic of the East and the West respectively. The simplest and most familiar distinction from which to set out is that between Eastern thought as predominantly contemplative and the more practical genius of the West. But the qualifying adverb "predominantly" must not be lost sight of; for this or any similar distinction is only true in a wide sense and with large and notable exceptions. On the one side, that of the East, we remember the practical genius of China and Japan; nor can we forget that little nation at the opposite extremity of the Asian continent, to which Europe owes its religion, and of which Mathew Arnold was thinking when he said that "conduct is three parts of life." And on the side of the West, while in the ancient, and still more in the modern, world the practical bent has been very strong, the contemplative ideal has never been wholly lost sight of and has had its periods of ascendancy, especially in the Middle Ages.

Still, if we bear in mind the limits within which alone this distinction holds good, we may find it useful and enlightening. But my immediate aim is to show its connection with another, closely related but less familiar, antithesis, which depends on the attitude of the thinker to the "Beyond" or the Infinite. So long as the practical aim is uppermost in his mind, he will look with suspicion on any attempt to extend the flight of thought beyond the limits of clear definition and immediately verifiable knowledge as likely to interfere with effectiveness, whether of science or invention or art. But for the typically contemplative mind these limits exist only to be transcended and the true goal of thought lies in the experience of the Beyond.

The former tendency is very clearly seen in the Greek genius. For the Greek the "infinite" was an object almost of horror. In his ears the word still conveyed its original sense of the unbounded, that which negates all measure or limit, and hence the formless or chaotic. So

the early mathematical philosophers of Greece took the infinite as typical of evil, and the measured and symmetrical as typical of good, or rather as itself the good. This attitude cannot surprise us when we remember that the mission of the Greeks was to introduce clearness, consistency, precision—in their own favourite word, *measure*—into the higher reaches of human endeavour. We see this both in speculative thought and in art. There had been much of the immense and grandiose in both spheres before their time ; but it was left to them to show that the highest beauty depends on a perfect command of the material medium and on a certain restraint in artistic expression. So in the sphere of thought, the first condition of advance lies in the clarification of the confused, though often far-reaching and impressive, conceptions of early thought, so that the thinker may have at his command conceptual forms and methods of reasoning which he has tested in the clear light of midday and can trust not to betray him. Hence the need for the work begun by Socrates of criticizing the ideas which pass current in ordinary thinking.

Much might be said on this subject ; but it will be sufficient to quote the familiar saying of Goethe, which does but re-affirm the central discovery of the Greeks, that “he who would do great things must limit himself.” The artist and the thinker are like the practical worker in this—they must patiently explore the characteristics and the limitations of the material in which they have to work, and they must be content to make each step, even if it be but a short step, secure before passing on to further advances. Thus in these very different regions, *concentration* becomes the golden maxim. But, if that is so, the thought of the infinite Beyond may prove to be only a distraction and a danger.

There can be no doubt that in this quality of concentration lies one great secret, perhaps the greatest secret, of political success. The great empire-building nations have either, like the Romans, possessed little imagination of the

poetical or speculative kind, or, like the British, have kept their imagination and their politics severely apart. The same secret has had much to do with the scientific advance which has been a greater achievement of the modern world in the West than its highest political success. Science, it is true, demands high powers of synthesis, and synthesis always spells imagination; but the scientific progress of modern as compared with ancient times is due far less to an increase of synthetic power than to the growth of a boundless patience, involving strict limitation, in the collection and verification of numberless facts. Modern science is what it is because it has not despised small things.

But over against this ideal of concentration, there stands that contrasted type of thought which looks for some more direct and immediate avenue to the highest truth, and constantly affirms that there is a side of man's nature which looks toward the Infinite. It repeats the aspiration of Plato for a single form of insight or knowledge in which all other knowledge is summed up or contained in germ. (For Greek philosophy and religion did not wholly lose the sense that concentration and "measure" were not everything, but that immediate inspiration might carry man into higher regions than the patient work of reason.) This intellectual temper refuses to be content with the slow accumulation of facts, or the limitation of the human spirit to those things which can be measured or verified. Whether its exponent be an Eastern sage or a Western philosopher like Spinoza, its aim is the realization of "the union between the mind of man and the whole of Nature," and in that realization it looks with full assurance to find the deepest peace. He who has attained to it knows, in the words of Tagore, that the ultimate truth about the external world "lies in our apprehension of the eternal will which works in time. . . . This is not mere knowledge, as science is, but it is a perception of the soul by the soul. This does not lead us to power, as

knowledge does, but it gives us joy, which is the product of the union of kindred things." But "to attain our world-consciousness, we have to unite our feeling with this all-pervasive infinite feeling." (*Op. cit.* pp. 8, 18.) Here the Infinite is no longer an object of fear or aversion, but contact with it, nay more the realization of the oneness of the human and the cosmic *atman* (surely one of the most daring conceptions ever reached), becomes the secret of all true understanding and of an abiding joy.

This contemplative ideal owes much of its power to its immediacy. It claims to go straight to its goal in intuition, not to go round by the slow acquisition of detailed knowledge. It provides a vision or a form of insight, which may afterwards be filled in numberless facts of experience, but which exists in its own right, and is the immediate and inalienable possession of him who has passed into the light. Nor does it depend, like the advance of science, or successful political action, on the co-operation of multitudes of other men; it belongs to the thinker himself (though, once acquired, he cannot but share it with others). It is true that its attainment is not easy. As Spinoza says at the end of his greatest work, this supreme "acquiescence of spirit" must be hard to gain since so few gain it. But the difficulty lies in the nature of the thinker himself; and the needed preparation for this insight consists, not in the accumulation of knowledge of mere facts, but in the elimination of all impure desire and every impulse to selfish pleasure or gain. When this is accomplished, the way lies open to that intuitive knowledge which is the goal of life. And this knowledge, whether words can be found adequately to express it or not, is essentially an experience of the Infinite.

I have sought in these paragraphs to define as concisely as possible two main types or varieties of thought, one of which is marked by concentration on the finite, which takes exactitude as its aim and has its outcome in practical

efficiency, while the other reaches out towards the transcendent, and seeks above all to attain to a sense of oneness with the Infinite and Universal. We may now turn to note certain signs of the growing realization that either attitude by itself is incomplete and that a synthesis may well be found of the characteristic ideals of the West and East.

M. Boutroux's little book represents such an approach from the occidental side. It contains, indeed, no specific reference to Eastern thought. His thesis is that the striving after a Beyond is an inextinguishable characteristic of the human spirit, and that it can find satisfaction only in a "Beyond that is Within," in the discovery of new depths in the inward and inalienable experiences of the heart of man; and the fact that he appeals to three of the greatest minds of the West in different ages,—Augustine, Pascal and Goethe, shows that this truth has been recognized in Western as well as in Eastern thought.

Man ever seeks to transcend the immediate, and that which is directly given in his sense-experience cannot finally satisfy him. He may try to find the Beyond in the outer of space and time, but this quest is doomed to failure; nay, in proportion to its persistence, he does but find himself more helplessly and cruelly dwarfed by the cosmic immensities. From this contest he must retire baffled. But there is another possibility. "Perhaps, if we look into our own selves, if we seek a Beyond, no longer without, but within, we shall have more chance of success than we had during our search for an Outer Beyond in the world of the senses, of the imagination, and of spatial measure." M. Boutroux supports this contention by quoting an old Belgian motto adopted by Maeterlinck, "Yet more is to be found in me;" while in the words which he borrows from Goethe we may see the complement to the saying previously cited:—"The outer beyond has dissolved, but build a still more glorious beyond, build it in thine own bosom" (pp. 9f).

This Beyond, Boutroux holds, may be reached along several of the chief lines of human endeavour, indeed it may finally appear that there is no one of them which does not in the end point towards it. He finds that such an aim is implicit in the active life ; for " human action, be it ever so lowly, aims at producing something that mechanical forces alone would not have realized, *i.e.*, at *creating* in some fashion " (p. 16). And in the second paper in the volume, on " Morality and Religion," he expounds more fully the sense in which the transcendent and the ideal is implied in the ethical world (pp. 75ff). But he also names four other " forms of life " which point to and express the Beyond. These are " positive science, metaphysics, art and religion," and it is a remarkable coincidence, if indeed it is not more than a mere coincidence, that these activities are also named by Tagore as each and all involving an element of the Infinite (Boutroux, p. 25 ; cf. *Sadhana*, pp. 26, 84, 115, 141). We may now try to see how this is true.

(1) Science has been taken in the earlier part of this paper as the very type of a mental discipline which confines itself to that which can be measured, tested and verified and which refuses to go forth into the vague half-lights of the super-conscious world. For long this description might have been taken as exhaustive, and to this restraint the success of the scientific method has in great part been due. But a point comes when the infinitely wide and varied ramifications of natural knowledge demand methods at once subtler and bolder. The immediate testimony of the senses has yielded all that it can yield to the interrogation of the observer ; and more and more reliance comes to be placed upon mathematical theory which cannot thus be tested by direct observation, and in which concepts of the Infinite come to play an ever greater part. And while this is true of such a science as physics, psychology by its researches into the sub-conscious, which some would hold to be nearly allied to the

super-conscious, has enabled us to read a new meaning into the old motto; "Yet more is to be found in me." Thus science tends to become less positivist in tone and to rely more on hypotheses which can only be verified by the finest processes of the abstract intellect. It also reaches a fuller recognition of the infinite variety and complexity of the universe, and is thus less ready to dogmatize on the impassable limits of knowledge, more prepared to admit the impact of immeasurable influences on the mind of man. And even apart from these recent developments, we cannot forget that there is something of the Infinite in every universal truth. As Tagore says, "a mere fact is like a blind lane, it leads only to itself—it has no beyond. But a truth opens up a whole horizon, it leads to the infinite" (page 26).

*(2) This is even more true in regard to Art. We do not in making this assertion contradict the previous statement of the essential place of limitation in Art. Like Science, it requires the discipline of concentration: it must learn full command of its medium of expression. The path to beauty lies through a certain restraint and "economy" through that perfect adaptation of form to idea, and banishment of all needless ornament which marked classical art at its best. But when this ideal has been approached, another and more sublime ideal is seen to lie beyond. The perfect expression of finite beauty no longer satisfies, and the artist strives to convey some hint or adumbration of an infinite beauty. Here, in the effort to express this transcendent idea, completeness and symmetry are no longer the one object of endeavour: it is found in the effort to express something of the "immortal longings" of the spirit of man.

So it has often been remarked that the perfect balance and symmetry of Greek architecture gives place to the suggestion of an infinite aspiration in the Gothic Cathedrals. The Greek temple is complete in its own finished beauty; the Gothic church raises the mind to the immeasurable

Beyond. Again, we may trace a growing rarification and the coming of a heightened sense of that which transcends full expression in the characteristic art-forms—sculpture, painting, music—of successive ages. But in the highest art, whatever its form, the Beyond is present, never fully or finally embodied, but at all times the inspiration of that which is achieved. In the words of Sir Joshua Reynolds “The sight never beheld it, nor has the hand expressed it: it is an idea residing in the breast of the artist, which he is always labouring to impart, and which he dies at last without imparting.”

(3). There is a parallel progress in the history of morality. Here also there is a necessary stage of definiteness and discipline, the stage of Law and legal observance. Though the duties of the good man may be numerous and exacting, yet there is no inherent impossibility attaching to them. They may still be thought of as capable of perfect fulfilment. But gradually, as reflection and self-knowledge grow deeper, a doubt arises whether goodness is exhausted by the performance of any outward law, and, as moral experience advances, this doubt becomes an assurance that the moral end cannot be thus attained, but that there is an element of the Infinite in the moral Ideal. This is the truth expressed by the Psalmist in the words, “Thy commandment is exceeding broad;” it underlies the discovery of Paul that “the law is spiritual;” and it has been writ large in modern ethical theory by Kant, who teaches that the ideal is so high and so exacting that it cannot be attained in this life, but implies a faith in immortality.

Or we may trace the development along another line. The doctrine that pleasure or happiness is the good (ethical hedonism) is essentially an attempt to bring definiteness and precision into the moral life, while all that transcends immediate experience is ruled out. The hedonist claims to have found a common denominator by which to assign comparative values to the competing goods

of different individuals and different forms of life ; and his claim is largely based upon the definiteness of his principle. Whether this claim is justified, and whether the "hedonistic calculus" has the precision with which it is credited is another question ; but at least hedonism stands forth as an attempt to reach an ethical positivism, recognizing only such factors in life as can be immediately experienced in their fullness and so measured and computed. But again and again in the history of thought hedonism has had to give way before a philosophy of wider range, which was not afraid to recognize in human experience, in obligation as well as in emotion, elements that refuse to be exactly computed. Moral Philosophy at its highest looks forth into the Beyond and acquires the character of Religion.

✱ (4) All that need be said under this heading is expressed in the words of Boutroux. "Finally, religion constitutes the endeavour to amplify, to enlarge, to transfigure the very foundations of our being, through that power which enables us to participate in an existence other than our own, and which strives to embrace even the infinite, *viz.*, love. . . And religion does really confer on nature the power of realizing what, from the naturalistic standpoint, was unrealizable. Religion pledges, in the innermost depths of the soul, the fundamental unity of the Given and of the Beyond, and she promises the gathering inflow of the latter into the former." Nor is this true only in the region of effort and action ; the great religious spirits have also expressed the same bold paradox of the relation of the finite spirit to the Infinite in terms of aspiration and desire. Such a religious paradox we find in the lines of Mary E. Coleridge :—

"Is this wide world not large enough to fill thee,
Nor Nature, nor that deep man's Nature, Art ?
Are they too thin, too weak and poor to still thee,
Thou little heart ?

•Dust art thou, and to dust again returnest,
A spark of fire within a beating clod.
Should that be infinite for which thou burnest ?
Must it be God ?

We have passed in brief review certain of the currents in the thought of the West which are setting towards the distinctive ideal of the East. Not for the first time is this the case. There seems to be a certain ebb and flow in thought, which carries it, now in the direction of limitation, concentration and clearness (the aim in periods of "Enlightenment") and now towards a wider and more daring idealism. The latter movement seems now to be gathering strength, and in proportion as it does so, it must dispose the West to a more appreciative understanding of the Eastern standpoint.

But what of the corresponding movement? Is there any tendency in the East to turn from pure contemplation to a more active and practical view of life? The answer lies clear to view in the eagerness which everywhere appears to take advantage of and to emulate the inventions of the West and its practical mastery over the material and spatial world. This imitation of "Western progress" must react upon the thinking of the nations who are thus eager to press into the course of modern civilization; and some way feel anxious lest they should learn the lesson too well, selling their own birthright for a material reward which, as West itself is slowly finding, cannot permanently satisfy the deeper needs of man.

But apart from this practical and visible approach of the East to Western standards of action, there arises the question whether the contemplative life itself must not be justified by its efficacy in preparing men for the battle of life as well as by its intrinsic goodness and dignity. We may hesitate to apply a purely pragmatist standard of value as ultimate and conclusive; and yet we may hold that, since few can escape the conflict, that philosophy or religion is highest which best fits them to take a part in it loyally and effectively, and that "the good of the soul," once attained, must work itself out in noble action.

This line of thought receives a very striking expression in Tagore's chapter on "Realization in Action,"

which he tells us in his Preface is translated from a Bengali discourse on "Karma yoga." "As some, under the idea that law is the opposite of joy, mistake intoxication for joy, so there are many in our country who imagine action to be opposed to freedom, they think that activity being in the material plane is a restriction of the free spirit of the soul. But we must remember that, as joy expresses itself in law, so the soul finds its freedom in action. . . . The soul of man is ever freeing itself from its own folds by its activity; had it been otherwise it could not have done any voluntary work. The more man acts and makes actual what was latent in him, the nearer does he bring the distant Yet-to-be. . . . The Upanishad says: *In the midst of activity alone will thou desire to live a hundred years.* It is the saying of those who had amply tasted of the joy of the soul." Further he holds that "this joy of life, this joy of work, in man is absolutely true," and that it is vain to "attempt the realization of the infinite apart from the world of action." Finally, he gives a noble vindication of the reality and worth of human endeavour and human progress. "Who so steeped in untruth as to dare to call all this untrue—this great world of men, this civilization of expanding humanity, this eternal effort of man, through depths of sorrow, through heights of gladness, through innumerable impediments within and without, to win victory for his powers? He who can think of this immensity of achievement as an immense fraud, can he truly believe in God who is the truth?" (*Sadhana*, pp. 120-122, 130.)

Have we not here evidence from both sides of the effort after a synthesis of the ideals of action and contemplation—of practical concentration on the immediate task, and of the realization of the Beyond? And must not such a synthesis rest on the discovery that the true Beyond lies within, that in all its greatness it remains a human ideal, manifesting itself in every effort to express the beautiful, or to attain to "truth in the inward parts," or to make

actual the solidarity of the human race? Much might be said of the practical effect of such a truth, if it were really assimilated, in teaching men to recognize the highest worth in other races and forms of civilization than their own, and in providing that greatest need of our time, a prophylactic against the poison of racial antagonism. But instead of pursuing this idea further I shall close with a remark and a quotation.

The word "synthesis" has been repeatedly used. But it need not imply that Eastern and Western thought should be simply amalgamated, or rolled together into a neutral compound in which the special differentia of each would be lost. The opportunity given by our time is one rather of fruitful contact than of complete coalescence. Each civilization, or each type of mind, may learn much from the other, and without surrendering its own best characteristics become wider and stronger for what it learns.

At the First Universal Races Congress, held in London in 1911, a remarkable paper was submitted by Dr. Alexander Yastchenko, Professor of Law at Dorpat, on "The Role of Russia in the Mutual Approach of the West and the East." After examining the chief distinctions between their conceptions of life, he sums up as follows:—"The East is characterized by the exaggerated cult of the past, the denial of the world, and the idea of Nirvana; the West by a no less exaggerated cult of the future, and the acceptance of the world as it presents itself to us. The equilibrium is destroyed on both sides. The failure to recognize the rights of progress in the East leads to stagnation, decadence, decomposition, and, in the end, contempt for the past itself; because the past has to be reconstructed incessantly by the living toil of new generations. The failure to recognize the rights of the past in the West leads to a situation in which life loses the cohesive quality of organic evolution and becomes a mirage of the onward flow of time, an aimless pilgrimage in the endless space of history." The solution of the

problems thus raised—a solution to which Britain and India, with their wide difference of genius and outlook and their remarkable opportunities of close association, may surely make a great contribution—Professor Yastchenko finds in the realization that “the Kingdom of God is to be attained, not on the earth, but by the work here below of collective humanity; not as a humanity-God, but as God in humanity; not by the destructive action of scepticism, but by the scientific realization of ideal aims. Normal society should be constructed, not for the animal existence of small contented souls, but for divine ends; because the normal life is a creative evolution of divine character.”

In these words we recognize an elaboration of a familiar truth: “The Kingdom of God is within you.” If this reading of the problem is correct, Eastern and Western thought may meet in the recognition of a Beyond, which lies in the heart of Man, whose task it is to express it ever more fully in his outward life.

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WILLIAM CANTON: POET AND CHILD-LOVER.

BY EDWARD J. THOMPSON.

MANY years ago Mr. Hall Caine said of R. W. Dixon : “Canon Dixon affords probably by far the most striking instance of a living poet deserving the highest recognition yet completely unrecognized.” These words are almost as applicable to a writer in our midst ; for Mr. Canton has endured the long effacement of writing the official History of the Bible Society. When it was known, ten years ago, that the poet of *Comrades* and the *W. V.* books had undertaken this duty, there were misgivings. All regrets are not yet silenced. “How people are cribbed, cabined, and confined !” wrote a friend of Mr. Canton’s to us. “There is the author of the *Book of Saints* spending years over a history. I hope he will now burst forth into fairy recitative again ; there must be a lot of music frozen up somewhere, and ready to be thawed out—if the sun will only shine for him.” Yet posterity will honour the poet who, knowing what his friends must think, turned himself, as life’s evening came with sorrow unspeakable, to the drudgery which has found such fulfilment. For the History is literature, even if not of the kind we would have from its author ; and literature greater than people imagine. Mr. Canton’s life has been one of hard work throughout. In his modesty, he claims only the quality of taking extraordinary pains, which, indeed, is his. As we write, on our desk is a volume of one hundred and twenty pages, *Little Hands and God’s Book*, which was “planned, written, printed, illustrated, bound, and about twenty thousand copies distributed within a month.” But there is also versatile genius and rich

experience in all that he has done. As to the experience, if life's purpose is to bring into character a permanent depth and enrichment, he has been of all men fortunate. To him has come an experience varied and fruitful, though at a cost which has been appalling. The gods have fashioned a reed into a pipe for heavenly melody, but in the process have slashed away its flowering glory. Hence, into his work have come a poignancy and, at times, an agony of outcry hard to parallel. It is small wonder that he should feel as he once expressed : " Looking back over your life you can see that at times you have been taken by the scruff of the neck and kicked and forced into certain positions." Connected with this experience, so rich if so painful, is his versatility. Mr. Canton's work is notable in several fields ; he is the poet of nature, faith and childhood and a prosewriter of resource and unfailing grace. In prose, his style is of all living writers, we think, the easiest. In choice of phrase and poise of sentence, all seems inevitable and ordered ; the reader is never conscious of strain. The style is full of fascination, of allusive finish, flushed with warm personality. He is our foremost authority of those the High Muse acknowledges in the realm of fairy legend. Yet his versatility is less than it appears. Nearly all his best work, however diverse in form, springs from one inspiration and is planetary to one allegiance. He is the historian and panegyrist of childhood ; his work in this sphere must live. It is the purpose of this paper to draw attention to that remarkable series of books which has invested with such pathetic interest the name of W. V.

Mr Canton was born in 1845, in the Island of Chusan, off China. His childhood was spent in Jamaica, where, we are told, " the scenery of the Blue Mountains awoke in him the love of nature." At the age of twelve he went to France, where he grew into manhood and where " the sudden discovery of a cromlech in a cornfield inspired him with a passion for antiquity." He was trained at

Douai for the Catholic priesthood, which, however, he never entered, spending his life in teaching and journalism instead. In 1887 he published *A Lost Epic and Other Poems*. This volume won recognition. Some had already come, for when *Through the Ages: a Legend of a Stone Axe* was originally published in the *New Quarterly Magazine*, it drew Huxley's admiring notice as "the first attempt 'to use the raw material of science' as a subject for poetry." And in Miss Jay's memoir of Buchanan are extracts from an interesting correspondence, beginning in 1874, when the novelist, attracted by the quality of Mr. Canton's anonymous work in the *Glasgow Herald*, wrote proposing collaboration. In the *Lost Epic* volume, Mr. Canton appeared as a poet of singular depth of thought and power of expression. In this and the later volume, *Comrades*, the bulk of his poetical work is contained. In two respects his work, both in prose and poetry, stands by itself, in the intensity of his love for children and his passion for antiquity. The former quality has won him lovers and correspondents in every quarter of the globe. The two features blend constantly, as in *A Philosopher* :—

To think these mites - ay, nurse, unfold the screen !—
Should be as ancient as the Miocenc ;
That ages back beneath a palmtree's shade
These rosy little quadrupeds have played,
Have cried for moons or mammoths, and have blacked
Their faces round the Drift Man's fire - in fact,
That ever since the articulate race began
These babes have been the joy and plague of man !
.....

Take them to bed, nurse ; but before she goes
Papa must toast his little woman's toes.
Strange that such feeble hands and feet as these
Have sped the lamprace of the centuries !

This glancing-back of thought to Earth's early years is constant. Our Ancient Mother has had in these latter times no child so essentially and reverently filial. The ages pass before him in continual pilgrimage. The discovery of an Indian cowrie in a barrow at the Land's

End leads to a beautiful reverie, in which the Aryans are seen streaming across Asia, but one of the countless ages of men who

have clamoured and passed away
Like crowflights through the sunset of a day.

His own comment, in praising a fellow-artist, illustrates his attitude: "I like to feel that there is a world of archæological lore behind a phrase." The earth's riddle has retained its fascination for him; even in the History it may be traced. This passion and pity for the old faded things of the world, this reverence for the dead centuries, is the breathing spirit of his work. Behind every sentence, like dim vistas of woodland behind a sunlit glade, are avenues of suggestion leading far back into a thousand twilights of history and legend. Cromlechs, mediæval saintlore, childhood's fancy, savage belief and tradition, primitive man and his civilizations, all contribute to this atmosphere of glamour. It is a Keltic gloaming; we move in an enchanted forest, amid rustling fern and haunted holly; the barrows have given up their dead and the woodland is repeopled. The late Father Tyrrell, speaking of what Protestants make a chief charge against Catholicism, its pagan affinities, said that to him this was one of its glories; Catholics love to feel "the sap of this great tree of life in their veins welling up from the hidden roots of humanity." Something of this feeling, this readiness to accept the materials of romance with both hands and from every quarter, has gone to make the pervading charm of Mr. Canton's most widely-known book, *The Child's Book of Saints*. These stories were told to Winifred Vida, his daughter; and W. V., to quote from the preface to the Everyman edition, "acts as guardian elf and guide to this new region of the child's earthly paradise." Hers is the wand before which these doors have flown open, and she moves, an unconscious princess, through its delightful beginning and close; Oakmen and Angels alike acknowledge her sceptred state. To those

who do not know her, let the following passage be an introduction :—

“Nothing seemed clearer to her than the reasonableness of one legend which taught that, though God always answer our prayers, He does not always answer in the way we would like, but in some better way than we know. ‘Yes,’ she observed, ‘He is just a dear old Father.’ Anything about our Lord engrossed her imagination; and it was a frequent wish of hers that He would come again. ‘Then,’—poor perplexed little mortal! whose difficulties one could not even guess at—‘we should be quite sure of things. Miss Catherine tells us from books: He would tell us from His memory. People would not be so cruel to Him now. Queen Victoria would not allow anyone to crucify Him.’” Of the stories themselves what shall we say? Even about the legends of S. Francis Mr. Canton has brought a new fragrance. Perhaps the most powerful story is the Ancient Gods Pursuing; the all-informing imagination here becomes concentrated and all but terrible. Moving in its simplicity is *The Pilgrim of a Night*; it is a passage from this story that the greatest of living Hellenists,* inheritor of an honoured name, has singled out as more like S. John’s Gospel than any other passage in literature, and, translated into New Testament Greek, it hangs in his study. But who can have preferences among the flowers of the field? Everywhere we have the same simple pathos of sentiment, the same precision of phrase, the same atmosphere of a devout and beautiful past; and it is the figure of a little child that guides through these ancient meadows.

We must pass over *The Invisible Playmate*, which many consider Mr. Canton’s most imaginative work. Here, too, we see W. V., though it is W. V. in a setting of the poet’s earlier experience, a setting impressively prophetic, as it anticipates his great sorrow. But it is elsewhere that we must turn for the memorial of the little girl whom Highgate Cemetery has held these twelve years. Everything

* Dr. J. H. Moulton.

that pertains to W. V. has taken on a sacred interest. Her father, touched to foreboding when as yet "the coming bulk of Death" was hidden, wrote in *W. V.: Her Book*, the book that made her "the child of many households besides our own": "Ah well, I want some record of these good, gay days of our early companionship; something that may still survive when this right hand is dust; a testimony that there lived at least one man who was joyously content with the small mercies which came to him in the beaten way of nature. For neither of us, little woman, can these childish, hilarious days last much longer now." And delightful indeed is this record of comradeship between father and daughter. The figure of W. V. dances before us, now touched to sudden gravity, now mischievous, but always shedding a glory upon familiar facts and events. In the chapter "Her Friend Littlejohn," her father writes:—"I have reason to believe that W. V. invested all that wild region with a rosy atmosphere of romance for Littlejohn. Every blade of grass and fringe of larch was alive with wood-magic." She has performed a like office since for others. "Loveliness, magic, and grace, they are here, they are set in the world": but often it has been left for a child to shew how "each blade of grass" had "roots which groped about eternity." During her brief day, Winifred was the inspiration and partner of her father's work. Since the shadows closed upon that day, though the pencil that limned her has retained its cunning and drawn in almost deeper, richer colours, there has been a weariness and loneliness with the hand that holds it. This mystic awareness of his daughter's share in his work has received implicit and frequent acknowledgment from Mr. Canton. Those who possess the numbers of *Good Words* of some eighteen years back can know the authorship of the many poems signed Vida Briss, if they remember that Mrs. Briss was merely the most mysterious of Winifred's discoveries of divided personality in herself. The stories in that book

of almost infinite sadness, In Memory of W. V., are always *Our Stories*. Well can we understand the misgiving that came at whiles to those to whom that crowded, happy life had been given ; not without reason did her father write :—

Oh, boundless tree of ranging blue,
Starfruited through thy heavenly leaves,
Be, if thou canst be, good unto
This apple-loving babe of Eve's.

But in *W. V. : Her Book* it is the bright and gifted maid who shared with her comrades of earth and air a life untouched by darker shadows that we see. It is the W. V. who saw the trees “with their hands full of flowers” and found the earth to be just an apple “at's always rosy half way round” ; the W. V. of quaint and speculative theology, who saw in the sun “God's hat” and was impressed by the Creator's “cleverness.” God's vast “cleverness” was a perpetual wonder ; He could make rain and people and could see through walls. Hence the wisdom of her comment on a wicked king who neglected a prophet's warning : “he wasn't very wise, for God and Jesus and the angels and the fairies are clever'n we are ; they have wings.” She found the same difficulty that has always beset man's childhood ; it was hard to think of God as “a great invisible Being.” Her suggested solution was : “A Sorcerer ? I suppose we have to give Him a name, so we call Him God.” Yet at times she was “distinctly orthodox” ; witness this dialogue. “‘Do you really love your father ?’ ‘Oh yes, father.’ ‘Do you worship him ?’ ‘I should think not,’ with a gracious smile.” She had great solicitude for the dead in their graves and pity for Boadicea, the poor queen with no flowers on her tumulus. It was no accident, in a universe where nothing is without its reason, that it was her father who wrote *Laus Infantium* :—

In praise of little children I will say
God first made man, then found a better way
For woman, but His third way was the best.
Of all created things the loveliest
And most divine are children. Nothing here
Can be to us more gracious or more dear.

And though when God saw all His works were good
There was no rosy flower of babyhood,
'Twas said of children in a later day
That none could enter Heaven save such as they.

And with W. V. as with Marjorie Fleming, it seemed as if Heaven granted this early ripening of spirit but that it might the sooner recall it. The story of her untimely passing hence is told in a book which to our mind has but one recent equal,—Mr. Barrie's *Margaret Ogilvy* in its quality of simple pathos. It is little marvel that the press passed almost unnoticed a tale of such delicate and mournful beauty. For what event can surpass in sadness the withdrawal of the children by whom God has lit and encouraged lives in danger of growing grey and weary? In the Anthology is an epigram which; even amid that wealth of elegiac loveliness, is pre-eminent by reason of its sharp outcry. "The story's heart still beats against its side." It is the wail of an old man who has watched, day by day, a little girl singing home to her father's house and knows that now evening must fall without her. "Thee, clear-voiced friend, no more shall the sun behold singing towards the wealthy home of Alkis; already for the meadows of Klymenos and the dewy flowers of golden Persephone hast thou taken flight." In this last record, Winifred's father has written of her "not as I last saw her, but as she was to me for nearly eleven years; as she will ever be in memory; as she is; as I shall yet see her, on the first day of the new week, when it is no longer dark, when the stone has been taken away." The relics of her busy life are here brought together. There is a child's account of W. V. by her cousin Phyllis, who, we fear, was not only bullied somewhat by Winifred but rather liked being bullied. Among other records of a past, sunny and beautiful, the chapter "A Red-Letter Day" is delightful exceedingly; the shadows and light of that long day amid the Surrey hills have become one with the texture of the story. Enough has been said to show that it

was a mind alert and eager that passed away with Winifred. The pathos of her closing days is deepened by the apparent slightness of the cause that led to death. "In the common sense of the word she did not *die*, but only swooned away through a momentary blank of darkness into the life divine." There had been ailment, but no alarm was aroused; when the end came, it was sudden. "Even at the end, the wind of the Valley was tempered. She suffered little pain, and no shadow of anxiety or misgiving disturbed her heart at any time. None of us thought of death, she least of all." She had come home for the Easter holidays, "full of gaiety and high spirits. She was so much a child of the earth, so completely one with spring flowers and new leaves and sunshine and the glad breath of the west wind, that one felt that while these lasted she could not but be as they were. Indeed, her joyous little soul seemed to give them something of its own immortality and a human nearness which of themselves they had not. She had a reverence and piety of her own, thought much of the mystery of God and of the person of Christ, made her own quaint forms of worship."

She was buried by her friend, Dr. Robertson Nicoll; and a robin sat through the service at the graveside. Dr. Nicoll's prayer has never failed to be with us during the conduct of such services: "We praise Thee for the years of good Thou hast given us!" The same thought is the refrain of the heartbroken last chapter, "Sub Umbra Crucis:" "For whom thanks be to the Lord and to Christ."

Thus did her father write when the freshness of sorrow was with him: "The red light dies on the hill, cottage windows glimmer far down in the dusk, the air blows cold; but she does not come home. It may be that in our hours of waking we are not fitted for intercourse with those of our love who have passed from this light; but I know that when it sleeps the mind 'is bright with eyes.' I shall sleep, and in sleep surely it will be given

to me to see her, as I saw one taken more rather in old days of loss. * And as sorrow fell from me then, so will it now drop away from me; and I shall be glad that I am alive, and not unhappy, Winifred, that you are dead."

*Perhaps it was as well that after this Mr. Canton should have turned to the History. From such labour, patient and prolonged, might come some measure of forgetfulness. *Othello, with his occupation gone, could not continue at the old life. But there are signs at last of a fancy returning to its former fields, that the "frozen music" is thawing out. The autumn of 1912 saw two books lit with the old magic. In the *Child's Book of Warriors*, Winifred, though never named, is still the inspiration. Noblest of all the warriors portrayed in this last book is the writer himself. Who else could write a story so pitiful as Hervé and Christina: "For a little time Hervé's lips moved silently. As the Dark Angel stilled them with his touch, the child's heart broke; and turning away from Hervé, the Dark Angel laid his hand tenderly upon her bright hair"?

There is a tenderness which is the creative spirit's last attainment of all, which is denied to the opulence of youth, however generous in its impulses, but which throws a beauty over the *Winter's Tale*, touching even the sternest figures, and tells us that Shakespeare is going home. The radiant gentleness which has made all his readers feel for him as for a friend, has filled these new tales of Mr. Canton. Never has even he written a more touching story than *Balt the Attacot*, or one with a finer ring, as of the clangorous trumpets of which it tells, than the *Rock of Narsinga*. *Samson is Samson yet, and cannot help but quit himself heroically. We will make one more quotation. With it we close our notice of a writer whose memory will endure as long as men care for work that is gravely adequate and wrought in the fear of that Master whose eyes are turned away from all imperfection. It is "The

"Passing Bell," which father and child used to sing as
Hesperus brought them home through the woodland :—

When our little day is ended,
When the dusk and dark have blended,
When the lights of time cease gleaming
O'er these tents of earthly dreaming,
Te rogamus.

Do not in that hour forsake us ;
Let not dust and darkness take us ;
Send Thy dawn's clear splendour streaming
From the East of our redeeming,
Te rogamus !

ED. J. THOMPSON.

Bankura College, Bengal.

Note.—The *Child's Book of Saints* and the *W. V.* books can both be procured in
Messrs. Dent's Everyman Series in two volumes.

THE MOON'S MOTION.

BY REV. A. C. RIDSDALE, M.A., F.R.A.S., F.P.H.S.

THE problem of the forces which go to determine the Moon's motions in space involves many very elaborate and difficult mathematical calculations. The unique genius of Newton, who was the first to open up this new path of enquiry, and the greatest mathematicians since his time, such as Laplace, Lagrange, Euler, Clairaut, Adams, Airy and Leverrier, have all been at work upon the "Lunar Theory," and yet the problem is not even to this day completely solved, although Professor E. Brown in a series of very able papers which he is now communicating to the Royal Astronomical Society appears to be approaching something like a real solution. I will try and make my paper as clear and as little technical as possible, but the subject-matter is a difficult one, and in the nature of things it cannot be made so easy and obvious as, for example, a treatise upon purely pictorial or observational astronomy. I may remind you that the study of the celestial motions, involving as it does the study of so many of the mightiest and most universal forces in God's creation, is by far the most important branch of our science. An earnest amateur astronomer will scarcely be able to satisfy all his curiosity regarding the celestial sphere by merely gazing through his telescope again and again at the well-worn craters of the Moon, or the mere dozen or so objects in the skies, that have any interest for the possessor of only a moderate sized instrument. He will want to know, not only what the celestial objects look like through a telescope, but how they really move, and how fast and at what relative distance, etc., and above all the reason why. To possess a clear understanding and thorough grasp of the main principles which determine the motions of the Moon

is of the utmost value to the earnest student of Astronomy, inasmuch as the Moon's orbital motions are, so far as we know at present, typical of all the other celestial motions throughout this Universe. Moreover the study of the various motions of the Moon has incidentally yielded most valuable information, such as, for example, the form of the Earth, the vicissitudes of the tides, the distance of the Sun, and consequently the magnitude of the whole solar system. But above all the Moon's motions and still more her irregularities have taught us the universality of the law of gravitational attraction. The motions of the Moon are moreover of the very highest importance practically to the navigator and geographer, since measurements of lunar distances and occultations of stars afford the most accurate determinations of longitude. I will begin by reminding you of two very important laws in regard to bodies moving in space. The first is that in the case of a body moving undisturbed along a straight line, the radius vectors joined from any point arbitrarily chosen outside that line to points along it, will always describe equal triangular areas in equal periods of time. The second law which should be remembered, is that any force applied along the line of the radius vector so as to deflect that body from its original motion in a straight line (such, for example, as the Earth's attraction on the Moon, regarded as the sole occupants of space), will not interfere with its sweeping out these equal areas in equal periods, and retaining the same orbital plane. Hence in all cases in which a body is moving under the influence of a central force, and under no other, we can deduce the following laws of motion :—

Firstly.—The areal velocity, or square miles per second, swept through by the radius vector, will always be constant at all parts of the orbit, or in other words, the radius vector will describe areas proportional to the time.

Secondly.—The linear velocity, or miles per second, will vary inversely as the distance at which the body

will happen to be at any given moment from the central attracting force (the angular velocity varying inversely as the square of that distance).

These all important laws in regard to celestial motions were discovered as plain facts by Kepler, from his examination of Tycho's observational records. But it was Newton who first proved them to be the mathematically necessary and universal laws of motion. Newton further proved that if a body be moving in an ellipse, having a centre of force at one of its foci, then the force of attraction at different points in the orbit will vary inversely as the square of the distance from that centre. And this was an epoch-making discovery of vast importance in the science of Astronomy, as being the basis of the universal principle of gravitation. Newton was able to prove that it is the attraction of the Earth which determines the main motion of the Moon in her elliptical orbit, and that this attraction is comparable with the amount of attraction or gravity at the Earth's surface. For at the Earth's surface, that is at the distance of the Earth's circumference from its centre, a body falls a little more than 16 feet, or 193 inches in one second. And since the Moon is sixty times further away from the Earth's centre than is a body at the Earth's surface, therefore a body at the distance of the Moon should fall according to this law only one-sixtieth squared as far per second as it would do at the Earth's surface. It ought then to fall 193 inches diminished in the ratio of 1 to 3,600 or $\frac{1}{19\text{th}}$ inch per second. And $\frac{1}{19\text{th}}$ inch is just about the amount which the Moon is actually deflected towards the Earth in each second. It was from the satisfactory proof of the Earth's attraction on the Moon that Newton was led* on to his great discovery of the universality of the law of reciprocal attraction between all the bodies in space. Hence each body is a centre of attraction extending infinitely into space, and hence results* the almost infinite complexity of the celestial

motions. He further proved by very subtle and beautiful calculations, that any body moving under the influence of a central mass, must describe some kind of conic. A conic section is the curve traced out by a point which moves in such a manner that its distance from a given fixed point called the focus continually bears the same ratio to its distance from a given imaginary fixed line called the directrix. When this ratio is unity the curve will be a parabola, when more than unity an hyperbola, when less than unity an ellipse. As then the curve must be a conic, it must be either an ellipse (a circle is only one form of an ellipse) or a parabola or else a hyperbola. What the particular conic would actually be in any given case, would depend upon the original or primitive velocity and direction imparted to the circulating body. It may be as well to remind you of the principal practical characteristics of these three kinds of curves called conic sections which are traced out by celestial bodies. And these curves are called conic sections, because, when a right circular cone (not any cone) is intersected by a plane surface, the boundary of the section so formed will be one or other of these curves.

Thus firstly, the ellipse is a plane of section which cuts completely across a right cone, coming out at both slanting sides, but lower down on one side than on the other. A parabola is a plane which cuts a right cone parallel to its opposite slant-side (that is at an angle equal to the constant angle which the generating line forms with the axis) but does not come out at both sides, and is such that its two extremities or legs continually approach each other but never meet, whereas the legs of an hyperbola (which cuts a cone otherwise than parallel to one of its slant-sides) diverge practically to infinity.

Now as the Moon does not fly away from, but goes round and round the Earth, it is obvious from the definitions we have given of the parabola and the hyperbola that she cannot be moving in a parabolic nor an hyperbolic

curve. She must then move in an ellipse. To be more precise, however, both the Earth and the Moon describe similar ellipses (the Moon's path being eighty times greater than that of the Earth, because its mass is eighty times less) around their common centre of gravity. However, in treating of the motion of the Moon around the Earth, it is convenient in all mathematical calculations to reduce the motion of the Earth to zero, and the mass of the Moon to zero, ascribing the whole mass of the two bodies to the Earth, and all the motion to the Moon. Thus we can place the centre of gravity of the two bodies, not as it really is at about $\frac{1}{80}$ th of the Moon's distance, or about 3,000 miles from the Earth's centre, but immediately at the Earth's centre.

Now, we will first examine what would be the motion of the Moon around the Earth regarded as its fixed centre of gravity, if there were no Sun or planets to disturb her in her orbit. She would move round and round the Earth, for ever describing exactly the same ellipse, exactly obeying the mathematical laws of motion of two bodies in space, which I have mentioned. The Moon's motion in this ellipse is brought about in the following manner.

When the Moon is at apogee or at the point which is farthest from the Earth, the Earth's attraction then overcomes her velocity, and brings her towards itself with such an accelerated motion that she at length overcomes the Earth's attraction and shoots past the Earth as it were, her velocity at perigee prevailing over the Earth's attraction. She then gradually decreases in velocity until she again arrives at apogee, where the Earth's attraction again prevails over her velocity. This process, if the Moon were undisturbed in her orbit, would repeat itself indefinitely. Thus the radii vectores would for ever sweep out equal areas in equal periods of time ; her lineal velocity would be always proportional to the momentary distance from the Earth, her angular velocity being proportional to the square of that distance ; or stating the case in less mathematical language,

if we compare the Moon at perigee and apogee, then at perigee the radius vector would sweep out a precisely equal area as at apogee, but the Moon's velocity would be greater than at apogee exactly in proportion as its radius vector would be shorter, and her angular velocity would be greater as the square of this proportion. Thus, supposing for simplicity's sake, that the Moon were twice as near the Earth at perigee as at apogee, then her linear velocity would be twice as great and her angular velocity four times as great at perigee as at apogee. The true amount of her ellipticity can be calculated from the variation of her apparent diameter, which ranges from $29\frac{1}{2}$ minutes to $33\frac{1}{2}$ minutes of arc, which points to her ellipticity being about $\frac{1}{18}$ th—over three times as great as the ellipticity of the Earth's present orbit. In order to predict the Moon's position in her ellipse, or in other words to form lunar tables, we must be acquainted with what are called the "elements" of an elliptical orbit. We must know, that is to say, the greater axis of the orbit, the ratio of eccentricity, which is the ratio of half the lesser axis to half the greater axis, the longitude of her perigee, and that of the ascending node, the inclination or the angular projection of her orbit to the plane of the ecliptic and lastly the longitude of her epoch, or the starting point as it were for our calculations. The first two "elements" determine the nature of the Moon's orbit, the three following her position in space, and the last is the relation of her present position to what it was at a given point of time. The average distance of the Moon, found from her parallax, being about $60 \times$ radius of the Earth, or 239,000 miles, and her ellipticity being known to be $\frac{1}{18}$ th, it can easily be calculated that her distance from the Earth must vary from about 221,000 miles at perigee to about 253,000 miles at apogee, a difference of 32,000 miles. The number of miles which the Moon has to travel in each lunation, being $2\pi \times$ mean radius (regarding her orbit as circular) is therefore $6.2832 \times 239,000$ miles, or about $1\frac{1}{2}$ million of miles,

or on the average 55,000 miles a day, or 2,300 miles or rather more than her own diameter in one hour, or 1,133 yards in one second. From the Moon's mean velocity per second (or what her velocity would be if she moved in a circle instead of an ellipse) can easily be found what her true velocity really is at any given moment by applying what is called the "Equation of the centre," thereby reducing her imaginary circular motion to her true motion in orbit of '055, or about $\frac{1}{18}$ th ellipticity. Incidentally I may remind you that the true form of the Moon's orbit with reference to the Sun, is not any series of ellipses nor looped spirals nor cycloids nor even trochoids, but it is nothing else than the orbit of the Earth, with very slight depressions and elevations of its concavity towards the Sun at each New and Full Moon. The Moon's orbit (contrary to what is often imagined) is always concave towards the Sun, even when at the point nearest to the Sun. She will then only be about $\frac{1}{3} \times$ distance from the Earth towards the centre of the chord, which joins the two points where she crosses the Earth's path at Quadratures.

As to the Moon's rotatory motion, I need only remind you, that owing probably to the Earth's attraction on some slight protuberance on the Moon's surface (analogous to a fixed tidal wave) she always presents to the Earth the same face and therefore she rotates synodically once in rather less than $27\frac{1}{3}$ days. In other words, the Moon rotates absolutely $13\frac{1}{2}$ times in a year, and relatively to the Sun and Earth $12\frac{1}{2}$ times. The actual rotatory motion therefore of a point on her equator would be about 10 miles an hour or $\frac{18}{104} \times$ the corresponding rotatory velocity at the equator of the Earth. As the Moon's orbital velocity is variable, and her rotatory velocity is invariable, we consequently see from the Earth's surface sometimes a little in front of her so to speak and sometimes a little behind. This "libration in longitude" amounts to about $7\frac{3}{4}^\circ$ either way. Thus we can see about 15° more of her surface longitudinally than if her orbital velocity were

invariable, besides another degree in longitude, by reason of other inequalities in her orbital motion, which we are about to mention, as due to the Sun's disturbing influence. And as her polar axis is inclined $1\frac{1}{2}^{\circ}$ to the plane of her orbit and that again is inclined about 5° to the plane of the ecliptic, we can therefore see $5^{\circ} + 1\frac{1}{2}^{\circ}$ or $6\frac{1}{2}^{\circ}$ beyond either pole according as the Moon is at one side or the other of her path around the Earth. Thus her "libration in latitude" is about twice $6\frac{1}{2}^{\circ}$ or 13° . The net result of the Moon's librations in longitude and latitude is that we are enabled to see at one time or another $\frac{3}{5} \times$ her whole surface instead of only $\frac{1}{2}$ of it. So far we have been treating of the Moon's motion as a simple ellipse around the Earth. We must now consider the far more difficult and complicated problems connected with the "disturbances" or "inequalities" of this original elliptical motion produced by the Sun's action. These perturbations or inequalities are in the nature of a superposition of small motions upon the main or normal elliptical motion of the Moon regarded simply as revolving about the Earth as its fixed focus. By acting unequally upon Earth and Moon the Sun destroys the mathematical exactness of the Moon's elliptical motion. Thus owing to the Sun's disturbances the Moon does not in fact move in any known or symmetrical curve, but in a path which sometimes approaches to and sometimes recedes from the true elliptical form, and her radii vectores do not sweep out equal areas in equal times. And the amount of the disturbing forces upon the Moon's orbit can be judged from the extent of her deviation from true elliptical motion. Although many of these perturbations are very small in themselves in each lunation, yet in the lapse of ages some of them accumulate so as to become very considerable, and may so modify the Moon's motions after long periods of time, as to render the original elements of her orbit quite inadequate. It is utterly beyond the scope of a short paper like this, to describe any but the largest and most important

of these inequalities. Over fifty of them are taken into account in astronomical ephemerides in longitude and over twenty in latitude. To account for all the Moon's inequalities which are almost infinite in number, is even beyond the present power of mathematics to accomplish. We will content ourselves with trying to get a clear idea of some of the most important (because the largest) of these inequalities in the motions of the Moon. Now when two bodies revolve round their common centre of gravity, and a third body is present to modify or disturb their motions by its attraction, if this third body is very far away (or very small), its action upon the two former is called a "disturbance" or "perturbation," and this third body is called the "disturbing force." Thus in the case of the Earth, Moon and Sun, the Sun is the far away disturbing force, the Earth is the fixed central body and the Moon is the disturbed body. Now it must be thoroughly grasped and understood at the outset, that the disturbing power of the third body depends, not upon its force of attraction absolutely but upon the difference (whether this difference be in amount or direction or both) of its attraction upon the two bodies that it disturbs. The mean difference or overplus of attraction by the Sun upon Earth and Moon does not amount to more than $1/640000 \times$ gravity at the Earth's surface. And this disturbing force is continually varying according to the temporary configuration of the three bodies. As the Sun is about 400 times more remote than the Moon, the Moon is therefore alternately $1/400$ th part nearer and $1/400$ th part farther from the Sun at New Moon and Full Moon respectively. And it is from these unequal distances and therefore unequal attracting forces that the Sun's disturbing influence is due. If the Sun's attraction on the Earth and on the Moon were always equal and in parallel directions, then this disturbing force would be *nil*. Thus although the Sun's absolute attraction is more than double that which the Earth exerts on the Moon (for his attraction on the Moon +

Earth's attraction multiplied by his mass and divided by the square of his distance is $330,000/(389)^2$ or more than double that of the Earth), yet his disturbing force is only $1/179 \times$ the whole force which keeps the Moon in her orbit. Hence at New Moon the Sun does not deprive the Earth of her satellite, in spite of his attraction being twice as strong as the Earth's because the Sun's attraction on the Moon at New Moon is only very slightly greater than it is on the Earth. Thus in order to prevent the Moon escaping, the Earth has not to exert an equal pull with that of the Sun, but only a pull equal to the difference of the amount of the Sun's pull upon Earth and Moon at the moment, and this difference of the Sun's pulls is always much less than the whole attraction which the Earth is able to exert upon the Moon. Both Earth and Moon fall towards the Sun together, this falling motion, of course, being combined with any other intrinsic motions which Earth and Moon may possess at the time. When it is New Moon, she is $1/389$ th nearer the Sun than is the Earth. The Sun's disturbing influence then makes the Moon fall towards himself slightly faster than the Earth, the Earth's attraction on the Moon is thus diminished for the time being and the Moon's curvature towards the Earth is diminished and increased towards the Sun. At half Moon or Quadratures, when Earth and Moon are at equal distances from the Sun, the Sun is pulling the Earth and Moon towards himself with equal force indeed but on converging lines, and thereby reinforcing the Earth's attraction on the Moon, rendering the Moon's orbit at Quadratures rather more curved towards the Earth, than it would have been if there were no Sun disturbing her true elliptical orbit. The Earth's attraction on the Moon is thus weakened at Syzygies and reinforced at Quadratures, much in the same way as the tides are drawn away from the centre of the Earth, when in a line with the Moon's attraction (disregarding the effects of friction), and pulled towards

the Earth's centre when at right angles to the line of the Moon's attraction. The force is directed away from the Earth, or the Earth's attraction is diminished at Full Moon as well as New Moon, because the Sun then attracts the Earth a little more than he attracts the Moon, thereby tending to separate them. Whilst the Sun is the only body which is able sensibly to disturb the Moon's elliptical motion by his direct action the planets do so indirectly, by disturbing the Earth's orbit and therefore slightly modifying the ratios of the distance of Sun, Earth and Moon. But before we enquire into the effects of the planets' attraction upon the Moon's orbital motions, we will first give our attention to the disturbances caused by the Sun alone.

In all mathematical computations of the inequalities produced in the Moon's motion by the disturbing force of the Sun, it is convenient to resolve this disturbing force into its three rectangular components, known as the Radial, Transversal and Orthogonal forces.

The Radial acts in the direction of the radius-vector (either towards or away from the focal centre). *The Transversal* acts along the line of the Moon's orbital path, so as to either accelerate or retard her motion. *The Orthogonal force* interferes with the plane of the Moon's orbit, generally tending to bring her into the same plane as the ecliptic. It chiefly results in the retrogressive motion of the Moon's nodes. The two opposite kinds of radial force are called the *Differential* and the *Constrictive*. In other words the radial force at one time tends to separate the Moon from the Earth and at another time to pull them together. The radial force is differential or separative at Syzygies, or New and Full Moon, when Earth and Moon are in a line with the Sun. The result is that the Earth's attraction is then lessened by about $\frac{1}{89}$ th.

At Quadratures or Half Moons, when Earth and Moon are at right angles to the Sun, the radial force is constrictive, adding to or reinforcing the Earth's attraction

by about $1/178$ th. The constrictive force is only about half as powerful as the differential. The radial forces vanish entirely at four points on the Moon's orbit, which are situated at about 36° on either side of the line of Quadratures. The Moon at these points is drawn neither away from nor towards the Earth.

The Transversal force is zero at both Syzygies and Quadratures, but at its maximum at the points 45° from Syzygies and Quadratures. Whilst the differential radial force always acts away from the line of Quadratures and the constrictive force always acts towards the line of Syzygies, the transversal force combines the two in affecting the Moon's velocity. Thus from New Moon to Half Moon the transversal force is against or retarding the Moon's forward motion. During the second quarter, it accelerates her, during the third quarter, or from Full Moon to the waning Half Moon, the transversal force is again retarding her, and for the last quarter, back again to New Moon, accelerating her.

The Orthogonal component which produces irregularities in the Moon's latitude, tends in general to draw the Moon towards the plane of the ecliptic. It neither influences the form of the Moon's orbit (this is done by the two kinds of radial force) nor her velocity (this is done by the transversal force), but it disturbs the plain of her orbit, chiefly by way of making the Moon's nodes revolve backwards. The nodes regress rather more than $1\frac{1}{2}^\circ$ in a month, accomplishing the entire circle in about 19 years. So much for the rectangular components of the Sun's disturbing influence on the Moon's orbital motions. We will now enquire into what are the principal effects thereof. Now, in spite of the immense labour that has been expended by the ablest mathematicians upon the so-called "Lunar Theory," it is still, as we have said,* incomplete and even slightly incorrect. Thus after a few years the Lunar tables begin to get wrong, and have to be made out afresh, the Moon being frequently behind or

before her predicted place by as much as 4 seconds of arc which is equivalent to about 4 miles along her orbital path. The number of "perturbations" or "inequalities" in the Moon's motions is indeed countless but such small inequalities as do not disturb the Moon in her orbit by more than, say, $\frac{1}{20}$ th of a second of arc or 80 yards, can be safely ignored without any practical loss. It will be sufficient, for the purposes of my paper, to point out only the largest and most important effects of the Sun's disturbing action on the Moon's motions.

And first we will take *The Advance of the Moon's Apesides*. This movement of the line of the Moon's apses, or advance of her perigee, is caused chiefly by the radial component of the Sun's disturbing force. The effect is brought about in the following manner. Whenever the Moon's perigee or apogee, or in other words the Moon's apses or major axis, are at Syzygy, or in line with the Sun and Earth, the radial force being then differential, lessens the power of the Earth, to pull her round so to speak. The Moon therefore goes on further in her course than she would otherwise have done before she turns the corner, hence the line of the Moon's apses will advance in the direction of the Moon's motion. When, however, the line of apses are in Quadrature, or at right angles to the direction of the Sun, the opposite effect takes place. The Sun's disturbing force is then constrictive, and hence the Moon turns the corner so to speak earlier, and consequently the line of apses regresses. But as the differential force is double that of the constrictive force, therefore the differential force prevails, and therefore the Moon's apses progress twice as much as they regress. And not only so, but it must also be taken into consideration, that the Sun goes round the same way as the apses whenever they advance, staying in company with them, whereas when they recede the Sun only meets them—thus indirectly augmenting their tendency to advance. The result of all this is that the line of apses advances $6 \times$ the Moon's

diameter, or about $3\frac{1}{2}''$ per month, or nearly $41''$ per annum, or accomplishes a complete, direct revolution in about $3,232\frac{1}{2}$ days, or in a period of rather less than 9 years. The motion of the Moon's perigee appears to be getting slower and slower as time goes on, being now 8 seconds in a lunation slower than in the time of Hipparchus. We will next consider the *Retrogression of the Moon's nodes*; as we have shown above, the orthogonal component tends in general to identify the plane of the Moon's orbit with that of the ecliptic. The orthogonal force is analogous to the precessional force, in that it effects the Moon's orbit much in the same manner as the precessional force affects the Earth's equatorial plane, causing thereby the retrogression of the first point of Aries. The orthogonal force causes the Moon's nodes on the whole to recede. Because when the Moon's nodes are before Quadrature and after Syzygy, the node will in that particular lunation advance. Yet in all the rest of the orbit, the orthogonal force being towards the ecliptic, the nodes will recede. For as the Moon rises from the ecliptic the orthogonal force will cause her to rise at a less angle and descend at a greater angle, and therefore she will come down to her next node on the ecliptic a little sooner than she otherwise would have done, and thus the node recedes. And *vice versa*, as the Moon descends below the ecliptic, she will, owing to the effect of the orthogonal force, descend at a less angle, and will again ascend at a greater angle than otherwise. Hence she will rise to her next node earlier, and hence again her node will recede. Whilst then her nodes can sometimes advance, yet their retrogression greatly preponderates on the whole. They recede on an average about $1\frac{1}{2}''$ in the lunation, $19\frac{1}{3}''$ per annum, or revolve through the whole 360° in 6793.39 days or a little more than $18\frac{1}{2}$ years' period. When the Sun is in a line with the Moon's nodes, that is, when the nodes are in Syzygy (since then the Moon's orbit is in the same plane with the ecliptic) and also twice each month, when the Moon

is at Quadratures, the orthogonal force vanishes altogether. And consequently at those times there is no force to disturb the plane of her orbit, so as to make her nodes either advance or recede. I should add that the inclination of her orbit as well as the position of her nodes is affected by the orthogonal force. But the effect in this direction is very slight and nearly compensated for in each lunation, and entirely so in a whole revolution of her nodes. The secular inequality in the motion of the Moon's nodes depends upon the variation of the eccentricity of the Earth's orbit; as her velocity is accelerated the motion of her nodes is retarded and *vice versa*.

We will next notice the effect of the radial force upon the *lengthening of the Moon's sidereal period*. As we have pointed out above, the force of the negative or differential component is double that of the positive or constrictive force. And besides that, the differential force preponderates for 216° out of the 360° of the Moon's monthly orbit. The result is that for every lunation as a whole, the radial force diminishes the Earth's attraction on the Moon by about $\frac{1}{359}$ th part. It thus enlarges her ellipse, and consequently makes her month nearly an hour longer than it would have been.

Another very important inequality in the Moon's motion is the *change of the Moon's Eccentricity*. This was discovered nearly two centuries before Christ by Hipparchus, being the most considerable of all the Moon's inequalities. Hipparchus was able to discover it because it very materially affects the times of eclipses, and it was the eclipses that the ancients chiefly studied and understood. The change of eccentricity is caused by the difference in position of the Sun in reference to the Moon's line of apsides. The eccentricity of her orbit varies according as to whether the Sun is towards the line of her major or minor axis, and the variation of her ellipticity due to this cause can be as much as $\frac{1}{70}$ th. The mean interval between successive

conjunctions of Sun and perigee is about 412 days. This change of eccentricity, which is sometimes called Evection, causes the Moon to be displaced in her orbit by more than $1\frac{1}{3}^{\circ}$ backwards or forwards, or more than twice her diameter or about 4,500 miles as measured along her orbital path. Its period is the time the Sun takes in going round from perigee to perigee or about $1\frac{1}{4}$ years. *The Moon's variation* is another very considerable inequality. It is the transversal component of the Sun's disturbing force which is mainly responsible for this perturbation. The transversal force tends, as we have said, to retard the Moon's motion from New Moon to first Quadrature, and from Full Moon to second Quadrature, and *vice versa* in the other two quarters. Hence, the result of this inequality is, that the Moon is behind her undisturbed place at first and third quarters and ahead at second and fourth quarters. She is most ahead and behind at the octants, her maximum amount being nearly $36'$ of arc, or about an hour and twenty minutes measured in time, or about 2,400 miles measured along her path, or rather more than her diameter as seen from the Earth. This inequality called variation does not affect the times of eclipses, because it is zero at the Syzygies, and hence it was not known to the ancients. To Tycho Brahe falls the honour of having first noticed this inequality.

We will next consider the *Moon's Parallaxic Inequality*. This is an important disturbance, since it alone of all the disturbances yields a data for computing that all important quantity, the Sun's parallax. It was by observing that this inequality was greater than what it should have been on the old computation of the Sun's distance, that Hansen was enabled to correct the Sun's distance, reducing it by three million miles. The parallaxic inequality is due to the fact that the ratio between the distances of Earth and Moon and Sun varies according to whether the Moon is at New Moon or Full. The Moon being about $1/400$ th of the distance of the Sun away from us, this fraction is

therefore the ratio of the parallax of the Sun to that of the Moon. The difference of the perturbing force at these positions is in the ratio very nearly of 200 and 203. The last great inequality that is perceptible even without telescopic aid is the *Moon's Annual Equation*. This may be regarded rather as an indirect perturbation by the Sun. It depends upon the fact that when Earth and Moon are nearer than the mean distance from the Sun, the Sun's disturbing influence will then be greater upon the Moon's motion, than when they are farther off and since the Sun's differential or separative force prevails in each lunation, therefore during the summer-half of the year (when Earth and Moon are farther away from the Sun) the Moon will be less disturbed and therefore will approach the Earth, her orbit then contracting and therefore the month will be shorter, and *vice versa* in the winter-half of the year, the lunar orbit will be dilated, and the month will be longer. The maximum amount of this hurrying up and slowing down of the Moon's motion due to the annual equation is rather more than 11 minutes of arc or about 700 miles backwards and forwards in the Moon's orbital path. The annual equation is a periodic inequality, wholly compensating itself in the period of one anomalistic year, or the time from perihelion to perihelion again. The Moon is most before or behind her mean place in April and October, that is to say, after half a year's excess of acceleration and retardation respectively. It may perhaps be as well to point out that the Moon's "mean" place always means her mean elliptical place. And her mean elliptical place means the mean place she would have if she moved in a circle when corrected by the "equation of the centre." We must not forget to make mention of a certain inequality in the Moon's orbital motions, which is sometimes overlooked. I mean the *inequality (chiefly in latitude) due to the elliptical shape of the Earth*. The Earth is an oblate spheroid or an ellipsoid of revolution. The mutual attraction between all the particles of the Moon's mass and all

the particles composing the prominent mass at the Earth's equator (the Earth's ellipticity is about $1/305$ th) causes a considerable disturbance in the motions both of Earth and the Moon. This inequality in the Moon's latitudinal position is the reaction of the Earth's axial nutation. Since the plane of the Moon's orbit does not coincide with that of the Earth's equator (where the excess of matter exists) it tends as we know to be drawn by the Moon's attraction into her orbital plane, the consequence of which is the nutation of the Earth's rotational axis. Hence *per contra* the Moon tends to be drawn into the plane of the Earth's equator. It must be remembered that the attraction of oblate spheroids differs from that of spheres in that spheroids do not attract, as though their whole masses were gathered at their centre but they attract a distant body in the plane of their equator more than if that body were in the plane of their poles. The constant effect on the Moon's latitude due to this inequality is about 8 seconds of arc or about $7\frac{3}{4}$ miles above or below the path she would otherwise have pursued. The motion of the Moon's nodes and perigee are also affected by the Earth's elliptical shape but only to a very small extent. I may add that the elliptical shape of the Moon herself has no sensible effect on her motions. So far then I have spoken firstly, of the Earth and Moon as two bodies alone in space; secondly, of the Earth and Moon as disturbed by a third body, the Sun, in various ways; and thirdly, as disturbed by the Earth's ellipticity; and now before I close my paper, I must just mention one other very interesting inequality, produced not by the Sun or the Earth, but by the planets. It is called the *Secular Acceleration* of the Moon's mean motion. This action of the planets is somewhat similar to that of the Sun which causes the Annual Equation. The planets are at present indirectly accelerating the Moon's motion by directly affecting the Earth's orbit. It must be remembered that the planets' direct action on the Moon must be practically *nil* owing to their exceedingly small mass

and the great distance of most of them compared with that of the Sun. Two centuries ago the then Astronomer Royal discovered (and communicated his calculations to the Royal Society) that the month must be getting shorter. He was led to this conclusion by comparing the periods of ancient and modern eclipses. By calculating back to ancient times what the dates of eclipses ought to have been according to the modern lunar tables, he discovered considerable discrepancies between the theoretical dates and the dates as given by Ptolemy, proving that the month was gradually shortening. Laplace later showed that this shortening of the month was proportional to the square of the time, a fact which was proved by all the known ancient and intermediate eclipses. The Moon was then about 1' ahead of the position she would have occupied, but for this so-called secular acceleration. He further discovered that this increasing velocity was due to the Earth's decreasing eccentricity. Owing to the action of the planets, the Earth's orbit is still getting more circular or less elliptical, or its minor axis is increasing (the major axis and mean motions remaining the same) at the rate of 3,900 miles in a century, and it will continue to do so, for about 24,000 years to come, when it will again gradually become more elliptical. If the Earth's orbit were to become a circle it would take 36,300 years to do so. But its eccentricity will never decrease to such an extent as that. So long as the Earth's orbit is decreasing in ellipticity, or in other words, so long as the Sun's average distance from us is increasing, so long also must the Moon's velocity be increasing too. The Moon is at present being accelerated by about $\frac{1}{100}$ seconds of arc every year, which accumulates by arithmetical progression to about 10 seconds in a century. The result is that our months now are about $\frac{1}{60}$ th of a second of time shorter than they were 20,000 years ago, and each month is $\frac{1}{57,000,000}$ th of a second shorter than the last. We need not, however, entertain any fears as to our month ever becoming unduly shortened for our remote

descendants, since it is abundantly proved from the fact that the sines and cosines of a circular arc which increase with time can together never be greater than unity, or thus exceed the radius but must oscillate between zero and unity, however much the time increases, that therefore the major axis of the Moon, and consequently her mean motions are subject only to periodic changes. Thus, the length of the month has no tendency in the long run either to increase or diminish, for the motions of the Moon can do no more than oscillate very slightly from faster to slower, and from slower to faster, in fixed periods of time of about 45,000 years. I may perhaps incidentally remark that the *resistance of ether* (if there be any such) and also *resistance of light* have no discoverable effect whatever upon the motions of the Moon. All the complex and subtle motions and submotions of the Moon can be entirely and satisfactorily accounted for solely by the universal law of gravitation or the hypothesis of matter attracting directly as the mass and inversely as the square of the distance. I have now tried to put before you, in as clear and concise a manner as I have been able, the principal forces which go to determine the motions of the Moon in space.

At least all these inequalities that I have now mentioned must be taken into due account before we can predict with any accuracy the position in her orbit which the Moon will assume at any required moment, after of course correcting for refraction, parallax, aberration, etc.

I began by reminding you of the fundamental mathematical laws of motion of two bodies in space. I went on to show that the orbits they describe must be one of the conic sections. I further pointed out that the Moon's orbit under the influence of the Earth's attraction is an ellipse with the Earth in the focus, and stated the amount of its ellipticity. I next brought before your notice the principal modifications of this her normal or primitive elliptical motion, due to the Sun's modifying influence, as

the third or disturbing body. This disturbing influence I explained as the difference of attraction either in power or direction, that the Sun exerts upon Earth and Moon at the same time. I showed you that the Sun's disturbing influence can be conveniently resolved into its three rectangular components, namely, the Radial (both positive and negative), the Transversal and the Orthogonal. We saw that these disturbing forces had various effects upon the Moon's motion in space, or upon her position in her orbit at any given moment. The chief of these so-called perturbations or inequalities of the Moon's motions I mentioned as—

1. The Advance of the Moon's apsides
2. The Retrogression of her nodes
3. The lengthening of her sidereal period
4. The change of the Moon's eccentricity or evection
5. The Moon's Variation or inequalities of her velocity
6. The Parallaxic Inequality
7. The Annual Equation
8. The Inequality due to the Earth's elliptical shape,
and, lastly,
9. The Moon's Secular Acceleration.

A. C. RIDSDALE.

Howrah.

THE STORY OF CALIPH STORK.

(Die Geschichte von Kalif Storch.)

Translated from the German of Wilhelm Hauff.

BY B. G. STEINHOFF.

THIS amusing story is one of several such which are strung together in a kind of novel without plot—the *Die Karavane* of Wilhelm Hauff—a sort of prose *Canterbury Tales*, describing the journey of a caravan through the desert, where, in order to while away the monotony of the long halts, each traveller in his turn tells a story. The narrator of this story—the story of Caliph Stork—is Selim Baruch, one of the characters in the book, who appears unexpectedly on the scene, when the caravan is midway in the desert, and who in the end turns out to be a more important personage than is expected.

Wilhelm Hauff was born in Stuttgart on the 29th of November 1802. All his works were crowded into the last years of a life, the shortness of which strikes one with wonder and admiration, when one considers the variety, the brilliancy, and the enduring excellence of his productions, for he died before he had completed his 25th year, on the 18th of November 1827. A closer investigation into the nature and peculiarity of his genius would probably trace a certain resemblance between him and our Keats, though the German wrote chiefly in prose. Both of them are conspicuous examples of early genius. Both died young and left behind them works of such maturity and perfection, as, of their kind, might scarcely have been improved, or excelled, had they lived to a greater age. Hauff is said not to have betrayed any extraordinary or prominent talents at school. After studying Philology and Theology at Tübingen he was for some time tutor in a nobleman's

family. He then settled down in his native place as editor of a literary magazine—the *Morgenblatt* (morning paper). It is to the amazing fertility of the last three years of this brief existence that we are indebted for those works of great and varied excellence, some of which like the *Marchen* (tales) occupy the very first place in literature. His short life, in the words of Uhland, was “a rich spring which had no autumn allowed it.”

Lichtenstein an historical romance, and *Mitterlungan, aus den Memoiren des Satan* (narratives from the memoirs of the devil) are two of his larger and more ambitious works. Besides these he wrote several short stories (novellen), the best of which are *Die Bettlerin vom Pont des Arts*, *Die letzten Ritter von Marienburg*, and *Die Sangerin*. Whatever may be the value of these works to the German reader, it is not likely that they will ever be very popular with the foreign reader either in the original or in a translation. The longer works are somewhat diffuse and are marred by too great a detail in parts, which a more experienced artist would have finished in a few strokes. They are also not free from a certain affectation of style and conscious mannerism, faults which never fail to become apparent in works produced in the interval between youth and early manhood. The novellen are all good reading, but not of a kind that is not to be met with in the literature of every nation. But the *Marchenalmanach*, a collection of stories and fairy-tales, bound together in a loose plot, and including *Die Karavane*, from which the piece here selected for translation is taken, contains what may safely be said to be his best work. All the qualities and the graces that go to make a writer of the first order are found in this beautiful production; and both in matter and in form it is stamped with the mark of excellence. Here there is no trace of strain, or laboriousness, or cudgelling of brains; and the whole is a conspicuous example of the maxim of art, “the half is better than the whole.” It is here that the

youthful freshness, the amiable and cheerful view of life, and the fine moral tone so conspicuous in all his works, are such, that, after a perusal of this work with unabated pleasure and admiration, one cannot but exclaim—“Only to the young, the good, and the beautiful in spirit, is it given to write like this.”

Hauff also wrote some songs and lyrical poems, many of which have passed into the general currency of the literature of his country.

What is the exact place he holds in the estimation of his countrymen, and what the degree of popularity he still retains are matters of which I cannot speak with any certainty; but to me, from my first acquaintance with his writings, he has remained one of the brightest, the cheerfulness, and most vivifying spirits who speak through the embodiment of cold type and printer's ink. How much do I owe to this brilliant young writer. He opened for me the door to the language and literature of Germany and gave me a kind of second mother tongue.

I have not met with any translation of his works in English, except an adaptation of one of his tales—*Der Zwerg Nase*—in a recent number of *Pearson's Magazine*. The liberties there taken by the translator do scant justice to the beauties of the original. In the two volumes of Müller's German classics, strange to say, Hauff does not appear, despite the just panegyric of Uhland.

The piece selected for translation, like everything of great literary excellence, must necessarily fare badly in the process of transplantation from the genius and structure of one language to those of another. The fine penumbra of the associations is inevitably lost. There are only two tolerable methods of translation, *viz.*, (a) the middling free and (b) the throwing overboard of all phraseology, while translating or re-expressing the ideas only. I have here attempted to combine both. The absolutely literal translation is, of course, not readable. How far I have succeeded in clothing in an English garb

the charm of this fine writer, I leave to the reader to judge.

B. G. S.

THE STORY OF CALIPH STORK.

I.

The Caliph Chasid of Bagdad one beautiful afternoon lay comfortably reclining on his sofa ; he had been having a short nap, for it was a very hot day, and he now looked out bright and refreshed after his siesta. He was smoking a long pipe of rose-wood ; and now and then he drank a little coffee, which was served up by a slave ; and every time he took a sip he stroked his beard complacently, which meant that he relished the liquid. In short, it was clear that everything was well with the Caliph. This in fact was the time when he was most accessible, and one could hold speech with him, for he was then always mild and affable ; and it was for this reason that his Grand Vizier Mansor came to him every day about this time. On this particular afternoon also he came, but, contrary to his usual custom, he wore a very thoughtful look. The Caliph, taking the pipe from his mouth for a little, enquired : “ What makes you put on such a serious countenance, Grand Vizier ? ”

The Grand Vizier placed his arms crosswise over his breast, made a low bow to his master, and said : “ Your Highness, I do not know whether I wear a thoughtful look or not, but down there in the palace is a pedlar, who has such beautiful things for sale, that it grieves me to think that I have no superfluous cash.”

The Caliph, who had long been meditating a present which he wished to make his Grand Vizier, sent his slave down to fetch the pedlar.

The slave soon returned with the pedlar. The latter was a little thickset man with a dark-brown countenance and in ragged attire. He carried a box, in which he had

all sorts of wares—pearls, and rings, richly chased pistols, goblets and combs. Caliph and his Vizier examined all the things, one by one, and at length the Caliph bought a beautiful pistol for Mansor and a comb for the Vizier's wife. As the pedlar, having put everything by, was about to shut the box, the Caliph happened to notice a little drawer, and enquired if there was anything more in it. The pedlar pulled out the drawer and showed a snuff box, which contained a blackish powder and a paper scrawled over with strange writing which neither the Caliph nor his Vizier were able to read.

"I once upon a time obtained these two things from a merchant, who said he had found them on the street in Mecca" explained the pedlar. "I do not myself know what they mean, but, such as they are, they are at your service at any price you may offer, for I can make nothing of them."

When the Caliph, who liked to have ancient manuscripts in his library, found that he also was not able to read the writing he bought the paper and the snuffbox and dismissed the pedlar.

The Caliph, however, was very curious to know what the writing contained, and he asked his Vizier if he knew any one who could decipher it. "Most Gracious Lord and Commander of the Faithful," answered the latter, "at the Great Mosque there lives a man—he is called Selim the Learned—who understands all languages; let him be sent for—most likely he understands these mysterious characters."

The learned Selim was soon fetched. "Selim," said the Caliph, addressing him, "Selim, they say you are very learned; just look into this writing, and see if you can read it. If you succeed, I shall present you with a new gala dress; if you fail, you shall receive a dozen boxes on the ear and twenty-five strokes on the soles of your feet, for you shall have to no purpose been Selim the Learned."

Selim bowed to the ground, and said, "Your gracious will be done, O Commander of the Faithful." He looked at the manuscript with profound scrutiny for a long time. At length he suddenly burst forth "This is Latin, Your Highness,—or may I be hanged on the spot."

Selim then began to translate as follows:—"Man, whosoever thou art that findest this, praise Allah for His favor. He who snuffs the powder which is in this box, and at the same time pronounces the word 'Mutabor,' can thereupon transform himself into any animal, and can also understand the language of animals. When he wishes to return again into his human shape, he must bow three times to the east, and pronounce the same word. But let him beware that he on no account laugh during his transformation, for the magic word will then utterly vanish from his memory, and he shall remain an animal for ever."

When Selim the Learned had thus read, the Caliph was delighted beyond measure. He bound the learned man with an oath not to impart the secret to anyone, presented him with a beautiful garment, and dismissed him. Turning then to his Vizier, he said: "This is what I would call a good bargain, Mansor. I shall not rest happy till I put it to the test and become an animal. Come to me early to-morrow morning. We shall go together into the fields, take each of us a little pinch from my snuffbox, and then listen to all that is being spoken in the air and in the water, in the woods and the fields."

II.

Scarcely had the Caliph Chasid, on the following morning, finished his toilet and his breakfast, when the Grand Vizier appeared, ready to accompany him on his walk, as he had been commanded. The Caliph stuck the box with the magic powder in his girdle, and, ordering his retinue to remain behind, proceeded on his way with the Grand Vizier alone. They went at first through the wide gardens of the Caliphate, looking about in vain for some living

thing on which to try their newly acquired art. At length the Vizier suggested that they should go further on to a certain pond, where he had often seen several animals, namely storks, which, by their solemn stately demeanour and their clatter, had always attracted his attention.

The Caliph agreed to the proposal of his Vizier and together they went to the pond. When they arrived there they observed a stork very gravely walking up and down, searching for frogs, and now and then chattering something to itself. At the same time they saw, high up in the air, another stork flying towards the same spot. "I wager my beard, Most Gracious Master," said the Grand Vizier, "these two longlegs will presently carry on a lively conversation between them. How would it be if we transformed ourselves into storks?" "Well spoken," answered the Caliph. "But first let us once more take note of how we shall again come back to our human shape—Right—Bow three times to the east, and say, 'Mutabor,'—and so I shall again be Caliph and you Vizier. But for heaven's sake no laughing, or we are lost."

While the Caliph was thus speaking, he saw the other stork fly over his head and slowly alight on the ground. Quick, he pulled the snuffbox out of his waist, took a good pinch, offered the box to his Vizier, who also did likewise, and both cried "Mutabor."

Thereupon their legs shrunk up, and became thin and red; the beautiful yellow slippers of the Caliph, and those of his Vizier were changed into unshapely stork's feet; their arms became wings; their neck shot out an ell from their shoulders; their beards disappeared and their bodies were covered over with white feathers.

"You have an excellent beak, Mr. Grand Vizier," said the Caliph, after long amazement. "By the beard of the Prophet, I have not seen such a thing in my life."

"My most humble thanks," replied the Grand Vizier, bowing to the ground, "but if I may venture to do so, I must maintain that Your Highness as stork looks almost

better than Your Highness as Caliph. But come, if it please Your Highness, let us listen to our comrades yonder, and see if we can really understand the language of storks."

In the meantime the other stork had alighted on the ground. He first tidied his feet with his bill, put his feathers in order, and then went up to his companion. Our two new storks hurried up to come near them; and to their astonishment they heard the following conversation:—

"Good morning Mrs. Longlegs, so early out on the meadows?"

"Many thanks, my dear Mr. Rattlebill, I have fetched with me a little breakfast. Would you like to have a bit of lizard—or, perhaps, you would prefer a tiny leg of frog?"

"Much obliged, indeed, but I have no appetite to-day. I have come out to the meadows for quite a different purpose. I am to dance to-day before my father's guests, and I thought I would practise a little on the quiet."

Thereupon the young lady-stork began to strut about the field with most wonderful movements. The Caliph and Mansor looked on in amazement. But when at length she stood on one leg in a most picturesque attitude, and began to flap her wings in a very graceful fetchy manner—this was too much for them, and neither could hold himself in any longer. A long and uncontrollable peal of laughter burst from their bills; and it was only after some considerable time that they could pull themselves together. The Caliph first came to himself. "That was sport indeed," he said, "which is not to be bought with gold. Pity, the stupid creatures have been scared away by our laughter, for they would certainly have treated us also to a song."

It only now struck the Grand Vizier that laughing was prohibited during their transformation. He imparted his fears to the Caliph. "The devil take us—Mecca and Medina—it would be a scurvy joke, indeed, if we are to remain storks to the end of our days. Try, for heaven's

sake to recollect that stupid word—I cannot for the life of me get it out.”

“We must bow three times to the east,” said the Vizier, scratching his head and cudgelling his brains; “and at the same time, say, Mu———Mu———Mu”

They turned themselves round to the east and bowed in unison, touching the very ground with their long bills—But O horror! —the magic word had utterly vanished from their memory—and how often so ever the Caliph bent himself almost double, and how vigorously and desperately so ever his Vizier cried, Mu——Mu——every recollection of the word was completely gone; and the poor Chasid and his Vizier were and continued to remain no more nor less than two pitiful storks.

III.

Sorrowfully the enchanted ones wandered aimlessly over the fields, not knowing what at all they should turn to in their calamity. They could not come out of their stork-skin, nor could they return to the city and make themselves known, for who would have believed of a stork that he was Caliph of Bagdad; and even if it were believed, would the inhabitants of Bagdad have chosen to have a stork for their Caliph.

They thus wandered about for many days, sustaining themselves miserably on the fruits of the fields, which, however, on account of their long bills, they could not very well eat, and then for lizards and frogs, they had little appetite, besides fearing to ruin their stomachs by such luxuries. Their only consolation in this lamentable condition was that they could fly, and so they often flew over the roofs of Bagdad to see what was going on there.

On the first day they noticed a great commotion and gloom in the streets. But about the fourth day after their enchantment, as they perched on the palace of the Caliphs, they saw below them in the streets

a magnificent procession. Drums beat and pipes resounded; a man in a gold-embroidered scarlet robe sat on a caparisoned horse, surrounded by attendants in glittering livery. Half Bagdad ran after him and all shouted "Hail Mizra, the Ruler of Bagdad!" The two pitiful storks, perched on the roof of the palace, looked at each other in blank despair, and the Caliph spoke "Canst thou guess now, Grand Vizier, why it is that I have been enchanted? This Mizra is the son of my deadly enemy the sorcerer Kashnur, who in an evil hour swore vengeance against me. However, I do not yet give up all hope. Come with me, thou faithful companion of my misery; let us journey to the tomb of the Prophet, where, by reason of the holiness of the spot, we may be set free from this enchantment."

They rose from the roof of the palace and flew towards the region of Medina. Their flight, however, was not very comfortable, for neither of the storks had had much practice in the art. "O Master," groaned the Grand Vizier, after a couple of hours, "with your gracious permission I can hold out no longer, you fly altogether too fast for me. Besides it is already dusk, and we would do well to find out a resting place for the night."

Chasid gave in to his minister's entreaty; and as they saw below them in a valley, an old ruin, which appeared to promise them a shelter, they flew to it directly. The place where they sought to settle down for the night seemed to have been at one time a palace. Beautiful columns rose up from among the ruins; numberless halls, still in fair condition, testified to the former magnificence of the edifice. Chasid and his companion wandered through the corridors in search of a dry spot, when suddenly the stork Mansor stood still. "Lord and Master," he whispered softly, "if it were not foolish in a Grand Vizier, and much more so in a stork, to be afraid of spirits, I have an uncomfortable creepy feeling, for I have

distinctly heard a sound as of some sighing and groaning somewhere quite close by." The Caliph also now stood still; and he also plainly heard a soft moan that seemed rather to come from a human being than from an animal. Filled with expectation, he was for at once going towards the quarter from whence issued the plaintive tones, but the Vizier caught hold of his wing with his bill, and with tears begged of him not to run headlong into new and unknown perils. But in vain, the Caliph, within whose body, even under stork's feathers, there beat a most valiant heart, tore himself away, at the expense of a few feathers and hurried into the dark passage. Presently he came to a door that was ajar and he distinctly heard sighs accompanied with something like a howl. With his long bill he pushed the door open, but stood still on the threshold in utter amazement. There in the tumble down apartment, which was dimly lighted from a grated window, he saw, sitting on the ground, a large screech-owl. The tears rolled fast from her great round eyes, while, in a hoarse voice, she poured forth her lamentations from her hooked beak. But when she saw the Caliph, and the Vizier, who had crept up in the meantime, she raised a loud cry of joy. Prettily she wiped with her brown-spotted wings the tears from her eyes, and to the great astonishment of both she cried in human speech, and in good Arabic:—"Welcome, ye storks, ye are to me a good omen of my deliverance, for it was once prophesied that a stork would bring me good luck."

When the Caliph had recovered from his amazement, he bowed with his long neck, placed his thin legs in an elegant posture, and said:—"Screech-owl, from thy words I believe I see before me a companion in misery. But alas! thy hopes, that thy deliverance will come from us, are vain. Thou wilt thyself see our utter helplessness when thou hearest our story."

The screech-owl then entreated him to relate it and the Caliph related what we already know.

IV.

When the Caliph had finished relating his story to the screech-owl, she thanked him and said : “ Hear now my story, and know that I am not less miserable than you. My father is the King of India, and I am his only daughter, by name Susa. The same sorcerer Kashnur, who has enchanted you, has plunged me also in misfortune. He came one day to my father and solicited me in marriage for his son Mizra. My father, however, who is a hot-tempered man, flung him down the steps in anger. The wretch then disguising himself in another form, contrived to come about me ; and when I once ordered some refreshment to be brought to me in my garden, he dressed as a slave, handed me a drink which metamorphosed me into this horrible shape. Senseless with horror, he conveyed me to this place, and with a terrible voice, cried in my ear : ‘ Here shalt thou, odious, and despised even by the animals, remain till thy end, or till some one, of his own free will, solicits thee for his wife even in this detestable form. It is thus I revenge myself on thee and thy proud father.’ Many months have passed since then. Solitary and sad I live like a hermit within these walls, despised by the world and an abomination even to the animals. Beautiful nature is shut out from me, for I am blind by day ; and only when the moon pours her pale light over these walls, does the covering veil fall from my eyes.”

The owl here made an end and again wiped her eyes with her wings, for the relation of her sorrows had called forth her tears.

The Caliph was sunk in deep thought over the narrative of the Princess. “ If I am not utterly deceived,” said he, “ there exists a secret connection between our several misfortunes ; but where shall I find the key to this enigma ? ” The owl made answer :—“ O sire, I also have the like presentiment, for in my earliest childhood a certain wise woman once prophesied that a stork would

bring me a good piece of luck ; and I already have an idea as to the way in which we may deliver ourselves." The Caliph was greatly astonished and enquired what this way of deliverance might be, which she had in her mind. "The Sorcerer, who has made both of us unhappy," said she, "comes once every month to these ruins. Not far from this apartment is a hall where he is accustomed to feast with his companions. I have many a time watched them there. As they then relate to one another their shameless doings, it is likely that he may mention the magic word which you have forgotten."

"O dearest of princesses !" cried the Caliph, "say on—when comes he—and where is this hall ?"

The owl remained silent for a moment, and then said : "Take it not amiss—but only under one condition can I grant your request."—"Speak out ! speak out !" roared the poor Chasid. "Command—I will agree to everything."

"Namely," continued the owl, "that I also am longing to be liberated, and this can only happen if one of you gives me his hand in marriage."

The storks seemed to be somewhat taken aback at this strange offer ; and the Caliph winked to his minister to come outside with him for a moment.

"Grand Vizier," said the Caliph, when they were outside the door, "it is a stupid business, this ; but—of course—you will take her."

"Is it so ?" answered the latter ; "Is that how the wind lies ?—to have my eyes scratched out by my wife when I return home ? Besides—I am an old man, and you are yet young and unmarried, and can the better give your hand to a young and beautiful princess."

"That is just it," groaned the Caliph, as he let his wings droop sorrowfully down, "who then has told you that she is young and beautiful. This is to tie the cat in the bag."

They argued the matter over at cross purposes for a long time, till at length when the Caliph saw that his Vizier

was determined rather to remain a stork to the end of his days than marry the owl, he decided to fulfil the condition himself. The owl was overjoyed. She then informed them that they could not possibly have come at a more fortunate time, for the sorcerers would most probably meet that very night.

She left her apartment, accompanied by the storks, and led them to the hall; they passed through several long and dark passages and at length came upon a bright stream of light that shone through a crevice in a ruined wall. When they arrived at the spot the owl advised them to remain perfectly silent. From the gap, where they were standing, they could discern a large hall, adorned with columns all round and magnificently decorated. Several variegated lamps rivalled the brightness of day. In the middle of the hall stood a round table laid with many and choice viands. Round the table was a sofa on which eight men were reclining. In one of these men the storks recognized the pedlar who had sold them the magic powder. His neighbour requested him to relate his latest adventures. Among these he related the story of the Caliph and his Vizier.

“And what word did you set them?” enquired another sorcerer.

“A right difficult Latin one, *viz.*, ‘Mutabor.’”

V.

When the storks, who were standing at the opening in the wall, heard this they were well nigh beside themselves with joy. On their long legs they ran to the gate of the ruins with such swiftness that the owl could scarcely follow them. Arrived there, the Caliph, overcome with emotion, said to the owl: “Deliverer of my life and the life of my friend, as everlasting thanks for what you have done for us, receive me as your husband.” He then turned toward the east. Three times did the storks bend their long necks to the sun, which was just then rising behind the

mountains, and cry "Mutabor," when in a trice they were re-transformed, and in the great joy of life, thus, as it were, newly bestowed on them, master and attendant, with laughter and tears, lay in each others arms. But who shall describe their amazement when they turned to look round. A beautiful lady magnificently attired stood before them. Smiling, she gave the Caliph her hand, and said : "Do you recognize your screech-owl no longer ?" For indeed it was she. The Caliph was so rapt away by her grace and beauty, that he cried out that the greatest piece of good fortune in his life was that he had once been a stork.

The three of them travelled together to Bagdad. The Caliph found in his clothes not only the box with the magic powder but his purse also. He bought at the next village the necessaries for their journey ; and they soon arrived at the gates of Bagdad. There the return of the Caliph created the greatest consternation. He had been given up for dead and the people were greatly rejoiced to see again their beloved Ruler. But so much the more did their hatred burn against the traitor Mizra. They rushed into the palace and seized the old sorcerer and his son. The Caliph despatched the old man to the same apartment in the ruins, which the Princess had occupied, when an owl, and had him hanged there. To the son, however, who was ignorant of the arts of the father, the Caliph allowed the choice either to die or to take a pinch of the magic powder. On his choosing the latter, the Vizier offered him the box. A good pinch from the same and the magic word of the Caliph transformed him into a stork. The Caliph had him shut up in iron cage and kept him in his garden.

Long and happy lived the Caliph Chasid and his wife the Princess. Their happiest hours were always when the Grand Vizier visited them in the afternoon ; they would then often speak of their stork-adventure ; and when the Caliph happened to be in specially high spirits he would

throw off all ceremony, and mimic the Grand Vizier as he appeared and deported himself when he was a stork. He would gravely and with stiff legs strut up and down the apartment, flap and shuffle his arms as if they were wings, and imitate his Vizier, and show what a figure he cut, when he vainly persisted in bowing to the east, and crying Mu—Mu—. For the Caliph's wife and children these pantomimes were always a great entertainment; but when the Caliph carried the joke too far, and continued to flap his arms, and bow, and mimic him too long, and cry Mu—Mu—the Vizier would smile, and then threaten to reveal to the Caliph's wife the strange conversation that passed between them, when they stood outside the door of the Princess Screech-owl.

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GEOGRAPHICAL EXPANSION IN THE FIFTEENTH AND SIXTEENTH CENTURIES.

BY H. L. D. GARRETT.

THE period under review is often loosely spoken of as the Age of Discovery. There is an element of truth and an element of falsehood underlying this rather vague appellation. If we are satisfied with the title we must be content to have it applied in a much broader sense. The Fifteenth Century in this sense certainly *was* the period of discovery. The earlier period of European History has been called "The Wandering of the Peoples" and one may say that this was followed by a period which may be termed "The Settling of the Peoples." The period we have under review may be said to mark yet another advance—"The Awakening of the Peoples." The mind of Europe at the time was like the position of a man in a tunnel who sees the daylight every moment appearing clearer as he moves forward. Suddenly he passes from obscurity into the full light of day, and he is dazzled and bewildered and cannot at first fully grasp the new world that opens before him. He is bewildered and he has not yet got his full sense of the new proportions. It was so with mediæval Europe. In this sense the term "Age of Discovery" may be well applied. It was the Age of Discovery in that it witnessed the development of scientific thought and investigation; of new styles of sculpture and architecture; of art and music and lastly in that it witnessed a re-discovery of Greek philosophy pregnant with momentous results for the thinkers of Europe.

Geographically it was also an Age of Discovery but only in its later period. The mediæval inhabitant of

Europe was sadly deficient in his Geography. The Crusader had broadened his outlook to a certain extent, but only to a certain extent. For him there existed the Mediterranean—the Sea—the East—with vague ideas of the countries behind it, the Holy Land.

India most vague of all. He knew an Africa only as a narrow seaboard tenanted by the hostile forces of the followers of a new religion and he knew something of Egypt. Outside this his mind was a blank, unless perchance he had campaigned on the eastern frontiers of Europe against the “heathen” of the Baltic coast much in the way in which a modern big game hunter goes lion-shooting in Central Africa. The remainder of the earth—of the precise shape of which he was still quite uncertain—was tenanted—according to the legends of travellers far more ingenious than those who misled Herodotus—by a number of extraordinary beings who lived in extraordinary regions. There was the legend of Atlantis. There was the mythical isle of St. Brandan. There were dragons and sea serpents, lakes of fire, cities of gold and races of beings similar to those who made the fortune of Othello as a raconteur. True, here and there were found travellers who had seen the far distant countries—as Marco Polo who visited China (where his statue still receives divine honour) and returned to write a handbook for the guidance of future travellers. But these were few and far between. Mediæval Europe as a whole was content “to bear the evils that it had” and to confine its operations to the neighbourhood of the Mediterranean and the adjacent countries.

Maritime discovery with its geographical expansion when it did eventually come did not arise from a Christian source at all. The Saracens—using the term in its loosest sense—mixed in race but united in the common bond of the religion of the Prophet—may be considered the pioneers in the Geographical Expansion which passed beyond the boundaries of the Mediterranean

and the Coastal Seas of Europe. The Red Sea and the Arabian Sea were well known to them—they had trading ports upon the coasts of India and are known to have had commercial relations with the southern ports of China at a very early date. On the West they had in all probability a fairly full knowledge of the Canary Islands and were certainly acquainted with the district watered by the Senegal (for this tract under the name of the Bilad Ghana—the Land of Wealth—appears in early Arabian maps—this same Ghana being corrupted later into the familiar Guinea).

The first Christian competitors in the field of discovery were the Portuguese and their original purpose was an interesting one in the light of its subsequent developments. It represents what may be called a Christian Reaction against Mohammedan Conquest, a development of the policy which was gradually freeing the Iberian peninsula from a foreign invader. In 1415 the Portuguese managed to recover Ceuta. This gave them a foothold on the coast of Africa and from this small commencement emanated a more pretentious scheme of conquest. Portugal's new possession was placed under a Governor who was destined to play a highly important part in the movement of discovery. This was the Infante Don Henrique commonly known as Prince Henry the Navigator. The title has led to a misconception. The Prince was not the founder of a new Scientific School of seamanship, not a kind of Captain Cook born out of due season. The fundamental motive underlying the Prince's patronage and encouragement of maritime enterprise was a religious one. The period witnessed nothing less than a new crusade developed in a new and highly ambitious direction. It was founded on a geographical error. The tradition had always been that the River Senegal had its source in a lake near that from which the Nile took its rise, and the object of Prince Henry and his followers was, by a conquest of the basin of the Senegal, to join hands with

the Nestorian Christians of Abyssinia, form a solid wall against further Mohammedan development to the South, and incidentally open up a possible re-conquest of the Holy Land by a flank attack upon the Saracen power there. Just as in the early Crusades the backbone of the forces had been supplied by the military orders of the Temple and Knights Hospitaller, so now Prince Henry called to his aid the Portuguese Military order of Jesus Christ which had succeeded to the position and property of the order of the Temple in that country. Such was the original scheme. There were two factors which rendered its accomplishment impossible. First, the geographical impracticability of the scheme and, secondly, the fall of Constantinople which made the Mohammedan hold upon the Near East too strong to be shaken. Hence the enterprise gradually lost its purely crusading aspect, and although the conversion of the heathen played a part, and a not inconsiderable part, came to be diverted to a more definite geographical expansion in a southerly direction. When Constantinople fell it became more than ever necessary to find a new route to India. Could this be done and in what direction? This was the problem which the early navigators set themselves to solve. It is not necessary to give, nor indeed does space permit, a detailed account of the patient ant-like progress of the early Portuguese explorers, as they moved slowly and pertinaciously along the African coast. But some of the more important feats in the movement are worthy of some comment. And for the present I propose to confine myself to African exploration, for, as I hope to show shortly, the final achievement of the African explorers was a more arduous and more meritorious performance than the better known voyage of Columbus. Exploring, converting, and—it must be acknowledged—slave-catching, the early pioneers began their progress. By 1442 the Azores were in their hands and the coast explored as far as Cape Blanco. Before his death in 1460 Prince

Henry was gratified by the sight of a real African lion, the spoil of one of his many lieutenant's successful voyages. By 1480 the trade with Bilad' ul Ghina—already corrupted into Guinea—had assumed large enough proportions to be worth putting up to public auction. The first purchaser, Gonsalvez, erected the first permanent settlement on the coast—already known as the Gold Coast—San Torge da Mina, the modern Elmina. The discovery of the mouths of the Niger and Congo followed in quick succession and then in 1485 Bartholomew Diaz made the first of the great discoveries. Charged by the King of Portugal with the definite task of following the coast of Africa to its extreme southern limit he proceeded, like his predecessors, along the coast to the extreme point hitherto reached and then struck boldly out to sea. Here he fell in with the violent storms so common in these latitudes and was driven back upon the coast at the point now known as Mossel Bay. Had he but known it, he was now on the southern coast for in his beat out to sea he had left the Cape behind him but it took some further voyaging to the East to convince him that the trend of the coast had altered and that his task was done. On his return journey he "made" the Cape and named it the Cape of Storms. The Portuguese explorers were indeed a long way from the crusading sphere of their original patron. In aiming at the less they had achieved the greater and the commerce of the East was now almost in their grasp.

In the meantime the effect of these discoveries upon Europe was immense. The achievements of Portugal stirred up a spirit of enterprise and enquiry in every maritime nation. Commercial energy needed a new outlet. The fall of Constantinople had barred the Eastern Mediterranean to Christian shipping and sounded the death-knell of the Great Italian ports. Diaz and his fellow explorers played no small part in effecting their final ruin. The whole focus of the maritime

life of Europe was transferred from the Mediterranean to the Atlantic seaboard. Portugal, Spain, Holland, England—the latter late in the race, owing to circumstances over which her people as a whole had no control—rose in geographical value as their sister states of the South declined. The African coast was already overcrowded from an exploring point of view and other adventurers turned their efforts westward over the wide Atlantic. Here again the Portuguese were first in the field though unsuccessful. There was much to tempt the explorer to sail westward. Tradition, true and false, had been busy about the mysterious lands over the ocean. There was St. Brandan Isle; there were the exploits of the Northmen in Vineland and there were many other legends. The Portuguese summarized these legends in one comprehensive term—Antilha—the “island over there” (possibly the antitype of “that beautiful shore” dear to the modern hymnologist). But the early explorers in this direction made one great mistake. Baffled by the size of the ocean before them, they strove to locate their promised land in the waters comparatively near the European continent and a chart of their voyages would somewhat resemble the performance of a modern figure skater. One and all they sought for the missing Antilha in a series of zig-zag voyages never venturing very far into the Atlantic.

One man alone saw that success could only be assured by sailing due westward till some land was reached. This man was Christopher Columbus. Columbus was no novice when he laid his daring scheme before the world. An early training in the Guinea voyages had been followed by a lengthy voyage to the North. His plans once matured, he took them first to Portugal, as the leading maritime power of the day. But here he met with refusal. Portugal had her hands full. So far the African exploration with its possibilities of a route to India soon to be realized had been entirely in the hands of

Portugal, and the resources of that country, not over large, had already been severely taxed by her efforts. A diversion of her maritime enterprise to Western waters would only weaken her efforts, and should the enterprise be successful and Antilha be discovered, it was doubtful whether Portugal could keep it in her own hands, and she would have been forced to see it opened to the trade and enterprise of other powers. Rather than risk this, the Portuguese monarch turned a deaf ear to his proposal. Baffled here, the great explorer next turned to Venice and Genoa,—here too without success. The republics can hardly be blamed for their refusal. As we have seen, they were already on the decline and they were not likely to assist in the process by participating in an enterprise destined to cripple their diminishing resources still more fatally. Columbus now turned to the Western powers who had hitherto not entered into the field, but whose geographical position made them obviously qualified to deal with the problem—Spain and England. In order to ensure success he and his brother negotiated simultaneously with the two powers. In the subsequent negotiations England was too late and we must not blame her when we consider the circumstances. The seat of the Tudor dynasty, newly come to the throne, was by no means a secure one and Henry VII, the embodiment of wary and deliberate statesmanship, was not in a condition to be hurried into an enterprise which might seriously tax the resources of his country slowly recovering from half a century of Civil War. When Henry finally made up his mind to talk over the project seriously with Bartholomew Columbus, the opportunity was gone. Christopher had already practically come to an agreement with Ferdinand and Isabella and the era of the “Greater Days of Spain” had begun.

The details of Columbus’ momentous voyage are too well known to need repetition in full. Briefly stated, he left Europe early in September 1492 and after a five

weeks' voyage arrived at the Bahamas. Then followed three months' cruising in the neighbouring seas, with the resultant gain of a general idea of the islands of the Carribean Sea and a triumphal return to Europe. The news of the successful voyage was naturally received with great enthusiasm in Spain and these followed the application to Rome for a grant of the newly discovered territory. But Portugal was already in the field and the rival interests might clash. Hence followed the famous Bull of 1493 by which Alexander VI divided the newly discovered territories East and West between the two powers. Much aspersion and contempt has often been undeservedly cast upon this document. One must not lose sight of the fact that the Reformation was still to come and that the universal authority of the successors of St. Peter was still an accepted fact. Above all we must not lose sight of the strong religious element involved. In dividing the newly discovered territories between the two powers, Rome was convinced that she was taking the wisest possible step to ensure Christianity presenting an unbroken and unassailable front to the hostile forces of Islam. The echoes of the fall of Constantinople still rang through the halls of the Vatican. Now Christianity was to deliver a momentous counterstroke. Hence, the sneers at the Bull are hardly justified and are really the product of a later age which "knows not" Rome and the authority of the successors of St. Peter.

The subsequent voyages of Columbus—and he made three more—were remarkably barren in their results. He might, starting from such a beginning, have anticipated the other explorers and won for the crown of Spain the coast of North America. But he failed in this for a reason which was to prove fatal to the exploits of both the Peninsular powers. In the case of both Portugal and Spain there was ever present—over and above the idea of religious propaganda—the idea of sending some definite products of their achievements to the Home Country. In other words,

"Gold and Slaves" was the war cry of the early explorers indeed, and it was the motto of the old Colonial system. If the supply of gold was short the deficit had to be made good in slaves. Over and above this was the needlessly drastic method employed in evangelizing the newly discovered races. Christianity was borrowing a leaf from the book of Islam. It was "The Faith or the Grave" as it had been in North Africa in the eighth century.

Following hard upon the deeds of Columbus, Portugal now ventured still further in the field which she had made her own—the African voyage. In 1497 Vasco da Gama, already not unknown in African voyages, set out upon his memorable expedition. The glamour of Columbus' exploits has rather unfairly cast a shadow over the deeds of Vasco da Gama. Yet assuredly the latter's voyage to India was the greater feat. Columbus had to sail 36 days with a fair wind over a distance of 2,600 miles—a great feat indeed, bearing in mind the size and handiness of the vessels of the day. But his Portuguese rival had a still vaster task before him. From the outset the old postal route was to be abandoned and all possible use was to be made of the discoveries of Bartholomew Diaz. The Cape was to be the main objective in the first instance. After this the issue was uncertain. To approach the Cape directly meant traversing from the last halting point—the Cape Verde Islands—a distance of 3,770 miles and this against contrary winds and tide "sets"—no easy task for the craft of those days—"as unsinkable as a bottle and about as seaworthy" is one description of the fifteenth century *Caravel*. Columbus' voyage from Spain to the Bahamas occupied only 35 days. It was 93 days after leaving Lisbon that Vasco da Gama sighted the South African *Coast.

Like his predecessor Diaz, he reached Mossel Bay and then proceeded to work eastward, far outstripping him. Christmas found him at the harbour which he named Port Natal in honour of the day. Lorenzo Marques was his next

important port of call and it was only in March 1498—eight months after leaving Lisbon—that he arrived at Mozambique. He had accomplished his task and united West and East. He was now in waters well known to the Mohammedan mariner and he found ready assistance in the way of pilots and other assistance.

Let us consider one moment the condition of maritime affairs in the Indian Ocean at the time when da Gama arrived. For years the vessels of the Arab sailors—rough unhandy craft, innocent of bolts and held together by fragile bindings of cord—had navigated these seas. At this time two great entrepôts of commerce easily held the first place. These were Calicut the parent—the primary maritime meeting place of East and West—and Malacca its flourishing offspring. These ports were in the hands of two classes, the true Mohammedan, known generally as “Moors,” and a mixed population from the Eastern Mediterranean, the forerunners of the ubiquitous “Greek” of to-day, who were known as “Runis.” The commerce was prosperous but piratical. It was frankly a law of the strongest. Even 200 years later when English and Dutch had entered into the race for commercial supremacy, we find that there was very little law in these parts, except the law of the strongest. It was into these regions that Vasco da Gama made his way and it was to Calicut that he directed his vessel. After some disputes with the local ruler, somewhat suspicious of the new arrival, da Gama was enabled to load up with a valuable cargo and to return in triumph to Portugal which he reached in September 1499, just over two years in all.

Thus was the way opened from West to East and it must be regarded as a momentous epoch in the history of the world—possibly indeed a more important achievement than the discovery of the New World proper. To quote a modern historian, “Ever since da Gama’s great voyage Southern and Eastern Asia, comprising then as now the most populous nations on the globe, have been gradually

falling under the sway of the European powers who have first appropriated their foreign trade, making permanent settlements on their coasts in order to secure it, thence advanced to controlling their administration and usurping their government and in some varying degree have succeeded in the more difficult task of gradually changing their habits of life and thought."

So much for the feats of Vasco da Gama. Let us now turn once more to the West and see what further progress was made there during the period which we are considering—the fifteenth century. Spain having discovered and annexed the West Indian Islands, showed remarkably little further energy. It was 25 years after Columbus' first voyage before Mexico was discovered. The explanation is simple and the apparent inactivity is quite reasonably explained. Unlike Portugal in India, Spain in the Antilles made a descent upon so highly developed and organized civilization. The Caribs who inhabited these islands were but savages at the best. It was found necessary to colonize systematically and thoroughly if the new discoveries were to be worth anything to their Catholic Majesties. Like everything else the art of colonization has to be learned and it took some time to do it. Towns were hastily planned upon unhealthy sites, and had to be abandoned. Of the 18 original towns planted by Spain in the Antilles only 10 survived a century later. Spain was learning to colonize, as England learnt later in the days of Elizabeth, and it took her 25 years to do it. Then she was strong enough to move forward to the conquests of Mexico, Peru, etc., which conquests do not fall within the scope of the present article.

Let us turn now to the slowest starter in the race of discovery—England. We have seen how Columbus' proposals had been entertained when it was already too late. The missed opportunity must have excited the deepest regret in the minds of the merchants of England who were

just beginning to realize the possibilities of the future that lay before them and it was not long before a new effort was made. In 1496 a new navigator appeared in England with a new scheme and this time his proposals did not fall on unresponsive ears. In 1496 came John Cabot with his scheme for the exploration of the northern shores of the New World. On 5th March 1496 he received Letters Patent from King Henry VII for the purpose. It need not be imagined that this was an encroachment upon the Bull of Alexander VI. Rome was still all powerful and so pious a monarch as Henry VII was not likely to set himself at variance with her. But if perchance land in the North should be discovered by the English Government, no harm would be done and Portugal and Spain need not be expected to feel aggrieved. Hence Cabot sailed from Bristol—one of the towns of the western seaboard called to a bright future by the new discoveries—and circumnavigated Newfoundland discovering subsequently the coasts of Labrador. Incidentally he proved that the old legends of the “Northmen” were no idle tales and that the “Vineland” of the Sagas had a real existence. But beyond this the result of his discoveries was remarkably barren. The English Government and the English merchants heard the account of his voyage, contrasted his account of the icebound North with the golden legends of the East, and went away indifferent. Many years were to pass before the English, inspired by a new pride of race and a fresh motive, that of religion—and it is interesting to note once more how large a part religion plays in the drama of discovery—were to enter into the field of world conquerors. In the meantime what was happening in Southern waters? “Cursed is he that removeth his neighbour’s landmark,” says the commination service and the Spaniards were now in danger of falling into that undesirable situation. Desirous of “beating the boundaries of their newly acquired empire,” the Spanish monarchs had sent out an expedition under Puizar to explore the coast

which they still believed to be that of Eastern Asia. Pizarro accomplished his task and coasted along South America as far as San Roque and then northward to the Gulf of Perla. It is noteworthy that one of his shipmates was one Amerigo Vespucci destined, through no fault of his own, to become the godfather of the new Continent. When the new discoveries came to be set out it was discovered that a considerable part of the country henceforward known as "Brazil" was inside the line drawn by the Bull of 1493 and therefore within the Portuguese sphere. By a singular chance the lawful owners arrived on the scene in the same year—1499—to take possession of their new territories, thoughtfully discovered for them by somebody else. Cabral, the successor of da Gama, was on his way to the Indies and like his predecessor was making a wide sweep out to sea. Having lost one of his ships he extended the width of his sweep in order to pick up the missing vessel of his squadron. In doing this he accidentally made the coast of Brazil,—almost a second discovery of America.

Such is briefly the story of the main features of the geographical expansion of the fifteenth century. The development of these discoveries belongs to a later date.

Let us now turn to Europe—the Europe no longer of the narrow mediæval tradition but the awakening Europe of the Renaissance—and see what effect these new discoveries had upon her intellectually.

As one historian has stated "the sudden shattering of the old geography produced by the discovery reacted at once in a marked way upon European habits of thought."

Religion is man's earliest philosophy: and what affects his habits of thought and alters his intellectual point of view cannot but modify his "religious conceptions." Now generally speaking, the mediæval conception of religion was based on the frankest intolerance. To fail to worship the Supreme Being otherwise than with the accepted rites and through the orthodox channels was the deadliest of sins. It was an offence against society for a nation might

be visited with the direst calamities as a punishment for the sins of the impious. Hence any form of heresy was ruthlessly suppressed.

With the discovery of the New World came a change in this direction. Here was a vast country given over to the deepest idolatry, a land naturally considered a fit and proper ground for evangelical operation by the worshippers of one God. Hence in the new settlements which sprang up—separated in many cases by vast distances one from another—there was no need for a rigid adherence to the old intolerance. In the religious crisis which was about to burst upon Europe, the New World offered a solution, and gradually it began to be recognized that there was an alternative to the State for the non-orthodox, and that this alternative was emigration to the newer lands over the seas. This movement is outside the scope of this article. I have merely referred to it as a very important result of the discoveries which we have been considering.

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RICHARD WAGNER ON MUSIC AND THE SISTER ARTS.

(Centenary, 22nd May 1913.)

BY CLEMENT ANTROBUS HARRIS.

UNIQUE gifts for dramatic poetry and music did not exhaust the wealth of talents combined in the one person of Richard Wagner. He suffered over ten years exile for his political writings and inflammatory speeches during the revolutionary rising of 1849. Subsequently, like Ruskin, he closely associated art with social questions: became anti-militarist, vegetarian, and anti-vivisectionist. So philosophical is his *Ring of the Nibelungen* in regard to the World as Will, that he is often supposed to have based it on Schopenhauer's famous book, though at the time of writing the poem he had never read a page of the Apostle of Pessimism. And so much has he to say with regard to the great verities in his twelve volumes of prose and in his dramas, that a theologian, the Rev. Principal Forsyth, D.D., declares "We (English) have no sort of idea of the vast religious thoughts underlying his creative work, or of the religious mission which finally came to dominate his amazing activity." *

"No man can serve two masters;" and nothing is more masterful than genius. No other musician ever showed the poetic gift which Wagner did—in this respect alone he has been reckoned the equivalent of Schiller. No other composer of operas ever took a tithe of the pains in regard to the words that Wagner did. Yet in a remarkable article † Mr. Ernest Newmann has recently shown that of all composers Wagner was, so to speak, the most purely musical. He confined himself to that class of subjects—

* *Religion in Recent Art*; see especially last two chapters.

† *Wagner and Super-Wagner Musical Times*, February 1913.

the mythical—which it was most exclusively and entirely within the power of music to express. This principle is constantly reiterated in his writings. Of his two greatest gifts, therefore, though they were apparently equal, one, as would seem to be inevitable, eventually became subject to the other. Curiously enough, it was that which was first manifested, the dramatic gift, which ultimately became subordinate, for as a lad he showed little talent for music!

And that happened which one might expect to occur in the case of a man of such extraordinary versatility. He became the passionate advocate of a union of all talents, leastways of all arts, under one roof. It was characteristic of him that when obsessed by an idea he would make all history do homage to his purpose. “With the aid of eminent art critics—Lessing, for instance—I arrived at the result that each separate branch of art develops itself to the full extent of its capabilities, and that, arrived at these limits . . . it demands to join itself to a sister art . . . Endeavouring thus to imagine a work of art of which all separate branches now unite each in its highest state of perfection, I arrived quite spontaneously at a clear conception of that ideal . . . As I was unable . . . to realize this ideal work of art in our own time, I called it ‘Art-work of the Future’. . . . It is to this title, by the way, that we are indebted for that spectral invention a ‘Music of the Future,’ which haunts French and other reports on art.”*

The “deplorable dissolution of the great Greek work of art,” the drama, he attributes to “those different branches of art which had previously been united being now dissolved and separated.”

Religion, though not usually called an art, is one of the forces which must enter into a perfect work. Of the plastic Art he writes “it is palpable that its ideally creative force diminished in exact proportion as it withdrew from contact with religion. Art, which was destined to reach

* *Wagner's Religion and Art*, Chapter I., Ellis' Translation.

its apogee in its affinity with religion, completely severing itself from this communion—which none can deny—has fallen into utter ruin.”

Music, he contends, said its last word as a separate art in Beethoven's Eighth Symphony, for in his Ninth and last, The Choral Symphony, the greatest of composers called in the aid of the poet. Like all controversialists of a highly imaginative temperament, Wagner confused vivid illustration of a statement with proof of it. Thus he draws so charming a picture of the Sister Arts languishing and despondent in loneliness, vigorous and enhancing each other's beauty, when united and mutually supporting one another, that one is apt to overlook the fallacy of the argument.

Needless to say it was in the production of an ideal drama that all arts were to unite. Even Wagner's politics were largely a means to this end ; not but what the reverse might also be said—he regarded art as a most potent factor in the formation of national character, and therefore his art-work may be said to have had, in the highest sense, a political purpose. “In the theatre of Athens,” he reminds us, “the enjoyment of art was at the same time a religious celebration, in which the most distinguished men of the State took part as poets or actors, appearing like priests before the assembled populations of town and country, who were filled with such high expectations of the loftiness of the works to be performed, that Æschylus and Sophocles could produce before them the profoundest of all poems and be certain of their appreciation.” Wagner's ambition was to found a condition of things in which the relations between art and public life, “as it once existed in Athens, would revive in a manner if possible even nobler and certainly more enduring.” He embodied his ideas in a proposal to the Government, and it was partly, at least, owing to no notice being taken of it, that Wagner sided with the revolutionaries in 1849. And hence his work written in that year, *Art and Revolution*. Towards the attainment

of such an ideal Wagner appears to have considered that the architect might well be content to plan little else than perfect theatres; the object of the sculptor should be to arrange groups, gestures, and dress of the performers; while the painter would devote himself to scenic painting and selection of costumes.* This, one may add in passing is not as derogatory to the sister arts as a first reading might lead one to suppose. Did not Leonardo da Vinci act as Director of the Festivals and Pageants of Milan? In Wagner's own conception the arts were to combine on equal terms, and each contribute to the perfecting of the others, as well as be itself perfected. Thus he considered that "an ideal and purely human" form of art—not merely conventional or natural—such as Goethe and Schiller had desired, might be attained if "the plastic expression of a dramatic performance could be raised to that distinctness which the art of painting has hitherto claimed as its exclusive privilege."† Hence, his desire to enlist the masters of the pencil and the brush. Even a musician, however, can hardly feel aggrieved if a slave of the easel, reading Wagner's invitation, puts his tongue in his cheek and hums to himself a little ditty anent a spider and a fly. For, doubtless with this object of enlistment, Wagner implies that the ancient sculptors leave us the form of the modelled Greek "like a petrified memory, a mummy of Greece,"‡ while the works of the united arts of the Future "will make the remains of Greek art an insignificant toy for foolish children."§ Wagner, Professor Naumann reminds us, "possessed a nature imbued with an ideal fanaticism. Whatever advantage might accrue to himself was a secondary result: the propounding of his principles being the ruling motive." Nevertheless there was a certain egoism in his advocacy. For he seemed to think that his ideal union of the arts, far from being a thing of the Past, was not a thing even of the Present, but only of the

* See his *Collective Works*, Vol. III.

† *Music of the Future*, p. 14.

‡ *Collective Works*, Vol. III., pages 162-263.

§ *Ibid.*

Future, and that he was its Prophet. Whereas, had he but looked around him, he would have found that architecture, sculpture, and painting, such as no theatre ever possessed ; poetry and music of the highest man can produce ; and many minor arts, had been brought together for centuries in Christian Cathedrals ; nay, in Temples the world over.

This oversight was the more remarkable since, despite certain moral blemishes which his detractors never weary of pointing out, there was, as already indicated, a strong religious bent in this passionate advocate of the theatre. He had, he tells us, as a lad, “gazed with agonized sympathy on the altar-piece in the Church of the Holy Cross, and had yearned with ecstatic fervour to hang on the cross in place of the Saviour.”^a And his subsequent “terrible nightmare” of student life and indulgence in “all kinds of youthful excesses” did not eradicate this fundamental characteristic. After his confirmation he became estranged from the visible church, which he regarded as having “sunk below the true intuition and stewardship of Christian ideas ;” whereas he found in Art, and especially Music, an agent which “reveals the innermost essence of the Christian religion with definition unapproached.” “The artist, too,” he claims, “may say of himself ‘My kingdom is not of this world’—and I may say this of myself.”[†]

Hence, it comes about that almost the only pictures which this would-be founder of an Emporium of all the arts was especially impressed by, or at any rate, singles out for mention, are of religious subjects. After explaining his own characteristically metaphysical conception of the doctrine of the Virgin Birth, he proceeds “That picture of Raphael’s (Sistine Madonna) shows us the final consummation of the miracle, the Virgin-mother transfigured and ascending with the new-born Son : here we are taken by a beauty which the ancient world could not so much as dream of here is Love divine beyond all knowledge of unchastity.”

^a *Mein Leben*, Chapter I.

[†] *Religion and the State*.

It is not unworthy of note that the composer who after receiving his First Communion, never approached the altar again, * should have produced the only drama in the world—unless we except the Oberammergau Passion Play—in which that Last Supper is represented, namely, “Parsifal.” And that the strongest impression produced on his mind by any product of the sister art should have been due to a picture having the same scene for its subject,—namely, Leonardo da Vinci’s “Last Supper.” Turning from restored copies which are hung alongside it, “the fact is suddenly revealed to his (the spectator’s) soul that the contents of the original are absolutely inimitable” Wagner writes in his *Mein Leben*.

It would be a presumption on the part of the present writer, a layman to the pictorial art, to discuss the relative merits of masters of the brush on their technical side. But surely no series of music-dramas has inspired so many painters and draughtsmen as have those of Richard Wagner : I refer to subjects from the “Flying Dutchman” by H. Hendrich ; from “Tannhauser,” by Aubrey Beardsley and M. Bruckner from “The Ring of the Nibelungen” by all three artists ; from “Tristan” by Robert Engels ; and from “Parsifal” by Kvon Rozynski and Hans Thoma. Parallels have often been drawn between great composers and great painters, the most close-fitting and convincing being, perhaps, that between Mozart and Raphael. Wagner is no exception : his work in purifying the opera from artificiality and convention and bringing it back to nature has been likened to that of Luther in Religion, Wordsworth in Poetry and the Pre-Raphaelites in Painting.

CLEMENT ANTROBUS HARRIS.

* Translators differ materially in rendering the passage in Wagner *My Life* on which this comment is founded. The “authorized” translation represents Wagner as saying “The shudder with which I received the Bread and Wine was so ineffaceably stamped on my memory, that I never again partook of the Communion lest I should do so with levity.” Mr. David Irvine reads him as saying “the thrill of emotion when the Bread and Wine were dispensed and received remained so unforgettable, that I, in order to escape the possibility of a diminished mood during a similar service, never again availed myself of the opportunity to go to Communion.”

MINDING ONE'S OWN BUSINESS.

BY R. M. STEPHEN.

WE heartily sympathize with the loud plaudits evoked in the crowded Roman theatre by the *Homo sum* of Terence ; yet experience dictates a cautious discrimination in applying the fine sentiment to practice, if we would do our work and fit our place. While we should not close our heart against what concerns our neighbour, and become immersed in narrow self-regard, our interest, as it has a centre, must also have a circumference. There are things which, though they may not be unknown or unconsidered, are for the time being under our horizon. Without counting aught human foreign, we see some things farther off than others, and give the more remote only what remains over of solicitude and service after we have settled more immediate claims. What lies to our hand requires our best resolution and composure ; let other things stand aside meanwhile, and wait their turn. We should measure carefully the time and thought available for matters beyond the boundary of plain present duty.

It is a sound rule, then, to keep one's place and mind one's own affairs. Difficulty and danger should neither be evaded in poverty of spirit, nor courted in bravado. We should not stray from our course in quest of pleasant weather, or in foolhardy challenge to the tempest. Declining the bright stolen day, we will wait for sunshine and soft winds which we can enjoy without the bad conscience of a truant or deserter. As for storms, those incidental to the course are enough ; and only in braving these is there virtue. It is but folly to double Cape Horn unless we are bound for a port that cannot be fetched another and less perilous way.

Each of us has his limited capital, which he should be chary of spending where the obligation is not clear, and the good he can do is uncertain. The Shepherd, seeing another man's sheep in danger, should certainly save them from destruction ; but his first duty is to his own flock. Only the unclaimed margin of his time and energy should be bestowed outside his covenanted service. The secondary must not be financed with filchings from the primary : debts must be paid to the last farthing before we begin to dispense charity ; and no reasonable neighbour will expect us, for friendship, to dig in his garden until we have finished with our own. We must not come to a personal task exhausted by a grapple with problems requiring faculties for their solution which we do not possess, or confront our brother's need and the sorrows of our neighbourhood, with a heart already given away to men in the ends of the earth, or to the romantic woes of the last tale we read.

Those who keep a dog should let him do the barking. There should be a division of interest as of labour. Some men make a business of politics ; leaving much to them, and thus relieving ourselves, need not mean culpable neglect of the duties of citizenship. Reluctance to harness ourselves like a cabinet minister does not prove us indifferent to the government of our country. There are judges in the land ; we need not be at great pains to set up a private tribunal and try every case that arises. We may enjoy an unruffled detachment, not wrought up to anxiety or hotly taking a side, and so expending nervous force we might put into matters that more closely concern us. The judge will give his decision, or the jury their verdict, without asking our opinion. Our best course is to keep a heart at leisure.

Some men very gratuitously burden themselves with the care of the universe, finding no point in Pippa's song as she passes, no relief in the faith that God reigns. Yet each of us has to answer only for a little corner ; if we

did our part there with more punctual conscience, we might perhaps be less oppressed with a groaning pessimism about the great wide world. We do well to ask how much of the burden that bows us we have a clear call to bear, and to lay aside every weight of our own perverse imposing. It is of course painful to find the world out of joint ; more painful still if we aspire to set it right, and discover, as to a certainty we shall, that we are unequal to the task. The riddle of the universe never makes those desperate that are sane and modest enough to acknowledge that they are not required to read it. Is there not a streak of presumption and affectation in most of us when we sigh over "the burthen and the weary weight of all the unintelligible world" ? The world is fairly intelligible for practical purposes ; every man will find business enough to mind if he looks about him, and never more than enough unless he looks too far above or beneath him.

"Men speak too much about the world," said Carlyle in his sardonic way. "For the saving of the world, I will trust confidently to the Maker of the world ; and look a little to my own saving, which I am more competent to." He recommends "staying at home" There is, indeed, a narrowly wrong way of conceiving of the soul's salvation, as if it could be worked out in self-engrossed disregard of the world. To hit the middle term between that and having the world too much with us, would be a fruitful achievement of practical philosophy and a material contribution to our happiness.

In the language made more than any other for free and joyous play of mind, men spoke of *ἄπραγμοσύνη*, and *πολυπραγμοσύνη*, life sunk in inaction, and life scattered and squandered in perpetual stir. Plato, who magnified the principle that every man should do his own business, and once at least identifies it with justice, gives it the excellent name of *οἰκιοπραγία*, that is, attention to one's own affairs, or, in homelier language, *doing one's own housework*. Only in due relation, in vitality and geniality of

contact, with the world does the individual life prosper ; sunk in itself it starves and faints, goes deaf and blind, makes for itself a prison instead of a home. Nevertheless, it must have some weight and substance of its own, some independence, power of detachment, and personal resource, that when it goes abroad it may give as well as get, be both benefactor and beneficiary ; and for this there needs homekeeping, seasons of retreat and recollection, concentration and self-examination. "Take heed unto thyself;" else will heed given to other things or other persons degenerate into meddling, and panting, fumbling officiousness. The quality of what we do for others depends on what we have first done for ourselves. We must do our own business well, before we can be of much use to our neighbour. His profit from anything of ours is but an overflow from the benefit we confer on ourselves ; and we shall please as well as serve him better by doing our own work thoroughly, than by hurrying it through or leaving it half done to go and lend a hand in his.

The farmer, who can bear the loss better may praiseworthy leave his own stacks to save his neighbour's ; but where their circumstances are fairly equal, he should, and of course he will, save his own first. We blame him if, secure himself, he is indifferent to the insecurity of his fellows. The self-forgetfulness which deserves admiration labours and suffers for others when it might be at ease ; that is different from going to labour far afield while there is yet much work at home clamouring to be done. As the neighbour to love is the man next us, so the thing to do is the nearest demanding attention ; it is no virtue, or real grace, to fly over that to something beyond.

"We are in a peculiar manner intrusted with ourselves," says Bishop Butler, "and therefore care of our own interests, as well as of our conduct, particularly belongs to us." We are responsible for ourselves otherwise than for our neighbour. We have to work for

ourselves, as we have no call to work for another. Any self-respecting person would consider it an affront if we proposed to make his living; he would, and with cause, bid us mind our own business. We cannot give with a good grace what we would disdain to accept. It would not be right, even if it were possible, for one man to do another's duty, it would be a sort of theft or usurpation. You may keep a man alive, and meritoriously if without your help he must die; otherwise you wrong him by interposing between him and a part he should play for himself. True charity succours those who cannot get work or bread; to keep in bread those that will not exert themselves to procure it is another matter. Men are in a peculiar manner entrusted with themselves; relieving them of all effort to honour the trust is not genuine beneficence. We do a man good by working cheerfully beside him, but only harm by doing his work.

When, and in what measure, time and labour should be given to public services, is a question each must answer for himself, after careful consideration of his particular circumstances and equipment. In this stocktaking he may be misled in two different ways—from shallow self-conceit, or from indolence, hypersensitiveness and lack of courage. Pericles, in the great funeral oration which Thucydides gives in his second book, enunciates the Athenian view of one who takes no part in public affairs, that he is not quiet and inoffensive, but positively useless, a drone in the hive. Οὐκ ἀπράγμονα 'αλλ' ἀχρεῖον νομίζομεν. This of course applied to a city state, in which some public duty was required of all free citizens, and hardly means more than it would to say in a country like Great Britain or France that it is reprehensible in the citizen not to vote in elections, and make his vote a matter of thought and conscience. But what is to be said of aspiring to some service or office beyond what is open to or required of everybody? Minding our own business and considering our limited faculty may at once dispense us from anything

of this kind, if we are the sort that shrink from it, or bar us out, if we are the other sort that hanker after it. But given the call, the capacity, and the opportunity, public service, whether we like or dislike it, becomes part of our duty as participants in the benefits and privileges of the social organism. "For we are all made for mutual assistance, as the feet, the hands, and the eyelids; as the rows of the upper and under teeth." So Marcus Aurelius expresses this great commonplace, as it may now be called; St. Paul would give it just as well or better, all but the quaint simile of the teeth. We may fly in the face of this principle in either of two ways: by refusing to do all we are called to and fit for, or by insisting on undertaking more.

Instead of casting about for any new illustration, let us take and digest a morsel of genial Socratic dialogue from Xenophon's *Memorabilia*, that little book which has come to us safe and sound through all the tempests and shipwrecks, the manifold chances and changes, of some four-and-twenty centuries.

Plato's brother Glaucon, though still hardly more than a boy, was impatient to launch into public life. As nobody else could restrain him, Socrates, who had a kindness for the lad and a high regard for several of his relations, took him in hand, and by asking some very pertinent questions speedily convinced him that he had much business of his own to mind before he could do Athens or himself any service by going into politics.

The substance of the dialogue is somewhat as follows:—

"What is the revenue of Athens?" Glaucon does not know. "Whence is it derived?" Glaucon cannot tell. Nor has he found time to learn what the public expenditure is.

"Goodbye, then," says Socrates, "to all thought of increasing the national wealth!" "Pooh!" answers Glaucon airily, "we can easily enrich Athens any day at the expense of her enemies." "To be sure we can," Socrates drily assents, "if Athens chances to be stronger than her

enemies ; otherwise she may only lose all she has. We must therefore know how weak or strong we are. First, then, Glaucon, tell us the power of the city by land and sea, and thereafter the power of her adversaries."

"Nay, by Zeus," Glaucon replies, "I cannot do that, on the spur of the moment." "Well, then," Socrates softly suggests, "if you have taken a note of it, go and fetch it." "To tell the truth," poor Glaucon confesses, "I have not yet made a note of it."

"In that case," Socrates imperturbably proceeds, "we will say no more for the present about wars of aggression. But how, pray, do we stand for the defence of the country? How are our garrisons distributed, and in what force?" "By Zeus!" Glaucon exclaims, "I would make a clean sweep of them, since they are so inefficient that there is no security for property in the country."

"Making a sweep of the garrisons," Socrates objects solemnly, "is surely a strange way to secure property! But tell me, Glaucon, have you actually seen for yourself, or how do you happen to know, that the garrisons are so useless?" "I make a shrewd guess," says Glaucon. "Pray then," Socrates insinuates, "shall we leave this subject also until we have got beyond shrewd guesses and actually know something?" "That will be best," Glaucon admits.

"You have never been out at the silver mines," Socrates resumes, "so we cannot expect you to explain why the output is less than it used to be. Of course," he adds ironically, "the neighbourhood is reputed unhealthy, and you have some excuse for keeping away from it. But you really must look into things and find out how long the wheat crop in the country will support the city, that we may not have a famine."

Glaucon only makes a wry face and says, "You are certainly cutting out my work for me." "Well," Socrates persists, "nobody would be thought to look well to his house, unless he knew what it needed to keep it going,

and were at some pains to find supplies. But the city consists not of one house but of ten thousand. Come, Glaucon, why not make a beginning in your statesmanship by putting one house on a good footing, your uncle's let us say, which needs any help you can give it. If you don't succeed with one house, how can you hope to succeed with ten thousand. It is folly to ask a man who cannot lift a talent to carry a much greater weight."

"Nay," Glaucon pleads, "I would gladly do something for my uncle's house if he would only let me." "What!" exclaims Socrates feigning surprise, "you cannot persuade him to trust you with his house, and yet you expect to persuade all the Athenians, and your uncle to the bargain, to trust you with the government of the city!"

Glaucon's cousin Charmides is the other type of man. He shrinks from public life, and Socrates, having a high opinion of his capacity, tries to spur him on. "Tell me, Charmides, if one well qualified to carry off the garland in the games, and so to cover himself with glory and give his city a more honoured place in Greece, were to refuse to enter the lists, what sort of person would you take him for!" Charmides' answer, and the application to his own case, are easily conceivable.

It all sounds tolerably modern, does it not? We may still meet Glaucon in the broad places of the city; we have often heard him talking with voluble assurance after dinner in the smoking-room at the club or, perhaps, we rise with him in the morning, walk with him all day, and lie down with him at night, since he is none other than ourselves. The *gens Glauconia* is large and strong, especially among men of Glaucon's years, just on the hither or farther side of twenty. It is a period in life when we have not quite learnt to bestow steady and methodical attention on our own business, but are ready enough to imagine that we can manage other people's. The Charmides clan, again, though smaller and partial to the shadow, being much averse to marching with streaming

banner and blaring trumpet, is nowise extinct nor likely to become so. It is prone to consider all conflict vulgar, and progress too dearly bought if it cannot be made without noise and debate. It will not pluck the rose for fear of the thorn, or strive for the palm for dislike of the dust. Still, as of old, there are some who are eager to grapple with great tasks without the necessary capacity and training ; and others that have knowledge and talent, but lack ambition, or are too sensitive and reluctant to expose themselves to the buffets and disgusts of a public career. Here is Would-and-Can't ; there Could-and-Won't. Some men are plainly marked for public service ; it is unfortunate if, not they, but others enter it. When some overleap the submission to labour and discipline which can alone make promising candidates for social or political service, and others take such a liking to the school that they will not leave it when their training is completed, the community must suffer twice over : great places are unsought by those fittest for them, and light, ill-qualified men are sucked into the vacuum.

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CALCUTTA PAPERS.

V. KINDNESS TO ANIMALS.

BY D. L. MONRO.

PUBLIC ATTENTION has been concentrated recently on various aspects of this question. The newspapers and journals have given space to expositions of the hard lot of the horse and the bullock, one of our magistrates has earned the praise of the humane by strong opinions expressed and energetic action taken in cases brought before him, and thoughtful and sympathetic women have written and spoken their mind on a state of affairs which continues to harrow their feelings. The European Association has taken up a strong position and, I understand, will not be content to let things remain as they are. It is unnecessary to offer any excuse for the inclusion of an article on the subject in this series, for the significance of our treatment of dumb animals as an index of our civic consciousness must be apparent to all.

It would be foolish to embark on any plea for kindness to animals that did not assume a desire on the part of the general public to treat all animals in the best and kindest possible manner, but the facts point to a considerable amount of apathy, and it is an immediate necessity that measures, effective and drastic, should be taken to deal with an evil that is a disgrace to the city. An extract from the European Association's letter to Government indicates, however, very clearly the existence of discontent with the present state of affairs, both as regards the regulations and their enforcement, and this is felt by others besides the members of this influential Association :

"My Council make the following suggestions which in their opinion would, if adopted, go far to place the

general conditions of this traffic on a more humane basis :—

- (a) The standardization of carts.
- (b) The re-adjustment of the present scale of weights for which carts are licensed under the existing Bye-law, a load limit being determined by the height of the bullock, measured from the shoulder to ground level.
- (c) The proper examination of animals for which a license is required and the rejection of all which are considered unfit.
- (d) Identification marks for all animals licensed.
- (e) As already shown in paragraph 5 of this letter the Police have full power to deal with any acts of cruelty, but, in order to ensure proper action being taken, special European Police Sergeants, or Inspectors, should be detailed for this duty.

“My Council are of opinion that the present licensing establishment under the Corporation is quite inadequate for the carrying out of the above suggestions and have no hesitation in stating that a considerable strengthening of the Staff is necessary. A competent European Officer should be placed at the head of the Department, and such officer should be a man with the necessary knowledge and experience to reorganize the Department. Weighbridges should also be placed in different parts of the town to enable the officers to check the loads at any time.

“To show that the Corporation is in a position to carry out all necessary reforms from a financial standpoint my Council would merely mention that they have every reason to believe that the annual income derived from the licensing fees amounts to nearly Rs. 1,12,000, while the annual cost of the Department is believed to be Rs. 9,000. Although the huge estimated balance of Rs. 1,03,000 shown by this Department is credited to the General Fund of the Corporation, yet my Council consider that the first duty of the Corporation is to provide an adequate and efficient staff for the purposes of the Department. They have no hesitation in stating that a vast amount of the present cruelty is due to the inadequate attention which has hitherto been paid by the Corporation to the Department in question and it is certainly most improper that a large annual revenue should be extracted from such a source without reference to the moral obligations attaching thereto and without reference to considerations of

humanity. It is unnecessary to point out that the cruelty to bullocks practised in the streets of Calcutta has long been one of the scandals of the City and it is trusted that this long neglected evil will now be properly dealt with."

The work of the Calcutta Society for the Prevention of Cruelty to Animals commands the sympathy of all humane people and it enjoys a considerable amount of support. Its work is of the utmost value, although its well-directed efforts are somewhat negatived by faults in the lower grades of its officials, and a lack of knowledge of the usefulness and availability of its services on the part of the public.

The following is the record of the Society's operations during the year 1913 :

Number of Prosecutions	...	7,935	
,, ,, Convictions	...	7,854	
,, ,, Warned and Discharged		32	
,, ,, Discharged for want of proof	...	49	
,, ,, Animals concerned	...	————	9,387

ANALYSIS.

		Animals.		Fines inflicted.	
				Rs.	As.
<i>Horses. —</i>					
Wounded	...	243	1,390	0	
Lame	...	4,578	26,561	4	
Emaciated	...	48	212	0	
Overladen	...	92	175	8	
Cruelly Beaten	...	19	128	8	
<i>Bullocks. —</i>					
Wounded	...	1,468	4,561	0	
Lame	...	788	2,765	6	
Emaciated	...	57	138	0	
Overladen	...	1,290	2,273	8	
Cruelly Beaten	...	25	189	0	
<i>Buffaloes. —</i>					
Wounded	...	193	667	0	
Cruelly Beaten	...	4	22	0	
Overladen	...	2	10	0	
<i>Fowls. —</i>					
Cruelly treated and carried by overcrowding	...	282	35	0	

		Animals.	Fines inflicted.	
			Rs.	As.
<i>Ducks.</i> —				
	Cruelly carried and treated ...	45	30	0
<i>Donkeys.</i> —				
	Overladen ...	4	11	0
<i>Dogs.</i> —				
	Illtreated, cruelly beaten and leg fractured ...	2	Discharged.	
<i>Pigeons.</i> —				
	Illtreated by overcrowding ...	181	12	0
<i>Pigs.</i> —				
	Cruelly carried and treated ...	2	30	0
<i>Cows.</i> —				
	Milked by Pooka ...	64	2,966	0
Total ...		9,387	42,177	2

Now the study of these figures does not, in my opinion, tend to complacency. It is a record of good work, having regard to the resources and the powers possessed by this excellent society. But essentially it is most humiliating evidence of the existence of an appalling amount of cruelty ; a record of the *punishment* of cruelty and not of its *prevention*. I do not seek to belittle punishment as a deterrent, nor is it necessary to theorize about the value of fines and penalties (or, if such were suggested, rewards and commendation) as a means for the promotion of right conduct. But, in order that these things may have adequate effect, it is necessary that they should be based on a sufficiently clear-cut and comprehensive code of regulations, and the very magnitude of our figures is evidence of the disgraceful inefficiency of our code. There are certain things at present untouched by regulations that are, to the average humane intelligence, utterly hateful. I refer, for example, particularly to the method of yoking bullocks and to the nose string.

From observation in town and country I am persuaded that the cruelty to bullocks that we deplore in Calcutta streets has no real counterpart in the villages and along the country roads and lanes. The leisurely progress of a train of carts along a suburban highway is usually a pleasurable

spectacle and it is seldom that our pity is stirred or our feelings harrowed. It follows that a great deal of the cruelty we deplore is a natural consequence of traffic conditions in the city, and a little observation will prove that it is so. The absence of a proper yoke, the nose string, the unwieldy cart, while comparatively innocuous on the country road, become instruments of torture in the crowded streets and alleys and compounds of the city (where confusion and haste seem to have become inseparable from traffic conditions). Where progress is impeded and irregular, and where the streets and lanes and compounds (and especially the entrances to compounds) are not surfaced as they should be, overloading, always an evil, becomes an intolerable cruelty.

It has been stated that bullock transport of the kind to which we have grown accustomed is suited to the conditions of the East and to the intelligence of the drivers and that it is futile to insist on such things as proper harness and well-constructed carts. The argument of cheapness (which bolsters up so much that is *kutchā* and ineffective in Indian industrial methods) is invoked. It is significant in this regard to note that the European Association, which has made itself responsible for some very definite suggestions of improvement, is largely composed of business men, with whom the economic argument might be expected to weigh. Truth to tell, cartage is only one small item in the cost of the goods handled, and higher costs affect prices as much as profits; even if it were otherwise, business men have no desire to profit from the torture of dumb animals.

Whatever may be the provisions of the law for the country at large, it is suggested that within certain defined limits which should enclose all the busy and congested streets and roads, jetty, dock and station-yards, we require very definite and drastic additions to the code. Within the delimited areas, certain conditions as to load, type of cart, yoke or harness and guiding reins, should be laid down. Two or three types of cart might be licensed for

various kinds and weights of package ; anything in the nature of the primitive bamboo cart should be considered out of the question for large and heavy packages and the use of a small four-wheeled lorry suitable to our existing lanes and compounds might be made compulsory for such work.

Many considerations, I submit, prevent us from taking complacent refuge behind theories of the brutality of drivers and owners—let us once for all admit that the blame rests on the community, and that while the element of wanton cruelty is not wanting the drivers are themselves driven by the circumstances of their employment. These circumstances can only be modified, we know, by authoritative control and the blame must rest wherever the means of control resides unexercised, or wherever lies the power to institute further necessary regulation. If I seem to infer by this that the responsibility is with those who occupy the seats of the mighty, let me point out that public opinion is, after all, a power in the land, and that, in a matter of this sort, an apparently apathetic public cannot justly expect authority to outrun the popular voice.

The first thing necessary then is that the popular voice should be effectively heard, that some means should be formed of making known in high places the existence of a widely held opinion that things are far from well with our patient beasts of burden, that there is a possibility of much amelioration, and that the problem is not so very complex, and must be solved whatever the difficulties may be.

Probably the procedure that would be most effective and most satisfactory to all who are concerned for the welfare of dumb animals would be the early formation of a small committee appointed by Government to enquire and report on the extent and nature of the evil in Calcutta and the necessary and possible steps (legislative and executive) to be taken to deal with it by all authorities and agencies concerned. Is it too much to hope that Christmas will bring us such a report ?

D. L. MONRO.

VI. CITY IMPROVEMENTS: TWO REPORTS.

ANNUAL REPORT on the Operations of the Calcutta Improvement Trust for the year 1913-14. Calcutta Improvement Trust, 1914.

THE REPORT shows that a certain amount of work has been put in hand, and that considerable progress has been made in preparation for the general main road scheme. Twenty-three lakhs have been spent on land for Scheme No. 1 and Rs. 1,60,000 on Re-housing scheme No. 1. A useful and interesting set of maps is issued with the report. The following extracts are of interest :—

Proceedings of the Trust.—The year under report was the second year of the existence of the Trust. It was stated in the Report on the first year's operations that although four Improvement Schemes had been notified it was recognized that the first task before the Chief Engineer was to prepare a scheme of main roads for Calcutta and the Suburbs. On Mr. Richards' departure from the service of the Trust the task of preparing such a scheme was entrusted to Mr. Maden, Trust Engineer, and Mr. Shrosbree, Chief Valuer, jointly. By the month of July they submitted a joint report which has excited much interest and which is generally admitted to be an excellent piece of work. It was estimated that the sums at the disposal of the Trust would amount to seven crores of rupees, and the Report was based on the assumption that four crores of rupees would be available for expenditure on main roads. The Report proposed the construction of new roads in the City and Suburbs of a total length of 21·82 miles and the widening of roads in the City and Suburbs to a length of 19·99 miles. Of the new roads in the City 1·14 miles were to have a width of 100 feet, 3·39 miles of 80 feet and 2·22 miles of 60 feet, while 4·66 miles were to be widened to 80 feet. In the suburbs it was proposed that 5·32 miles should be made of or widened to a width of 150 feet, while there would be 13·44 miles of new 100 feet roads and a further 8·87 miles of road widened to 100 feet. So far as the City proper was concerned the schemes had been actually worked out on the ground and rough but fairly accurate estimates of cost prepared. In the Suburbs less precision was necessary, nor, owing to want of time and the absence of up-to-date

maps, was such precision possible. The estimated cost of the schemes proposed in the City including the three schemes already in hand was

Lands—				
Gross	...	...	...	823 lakhs
Net	...	...	...	414 „
Engineering	...	...	...	64 „
Total				478 lakhs

In the Suburbs it was hoped that the net cost of land would be *nil* while the engineering works were roughly estimated to cost Rs. 160 lakhs.

Re-housing Scheme No. 1.—It was stated in paragraph 20 of the last annual report that the Trust had undertaken the erection of three blocks of buildings as an experiment in the fringe area of Ward No. 4. The buildings were designed to contain 14 shops and 238 rooms, each 12 feet by 12 feet with a 4 feet verandah in front and opening on to a central passage 7 feet wide. They were ready for occupation by 1st April, 1914. The final estimate of cost was : land, Rs. 58,000 ; buildings and works, Rs. 1,64,000. Owing to the enhancement of the award by the Tribunal and the costs incurred in consequence of the appeal, the acquisition of the land has actually cost Rs. 72,371 as against Rs. 58,000, originally estimated. There will also, it is anticipated, be an excess of Rs. 6,000 on the cost of the buildings due partly to the expenditure of Rs. 1,500 on special reinforcements and foundations necessitated by bad ground and partly to the expenditure of Rs. 2,500 on additional conveniences in the rooms.

The cost of the land works out at Rs. 832 a cottah ; it is recognized in England that the working classes cannot be profitably housed on land costing more than £300 an acre or Rs. 75 a cottah. There will therefore be a loss on this experiment and this was anticipated by the Board from the outset. It appears, however, that the buildings would show a fair return on capital if the rooms in the two upper storeys were let out at Rs. 6 a month, those on the ground floor at Rs. 5 a month and the shops at Rs. 10. The buildings are believed to be much cheaper than anything of the kind that has been erected in Calcutta before, the cost working out at only Rs. 2·8 per cubic foot, including water-supply, drainage and kerbing and guttering and it is interesting to find from applications received that there would apparently be no difficulty in filling the

buildings with tenants of the Bengali middle class, if the whole buildings or the two upper floors of each block were exclusively reserved for their use. The Board, however, consider that it is most important to ascertain what rent can be paid and what accommodation is required by the artisan and labouring classes. They have therefore decided to let the rooms at lower rates to artisans and labourers, and if the buildings once become popular, it will doubtless be possible to raise the rents at a later period. The experiment, however, seems already to show that excellent and sanitary accommodation suitable for the Bengali middle class or the poor Anglo-Indian can be erected to let at a profit at rents of Rs. 7 or Rs. 8 a room, and it is to be hoped that some enterprising capitalist will repeat the experiment.

REPORT, by request of the Trust, on the Condition, Improvement and Town Planning of the City of Calcutta and Contiguous Areas. E. P. Richards, M. Inst. C. E., etc. Calcutta Improvement Trust, 1914.

WE HAVE received from Mr. E. P. Richards, formerly Chief Engineer to the Calcutta Improvement Trust, a copy of his very complete report. The work is of great interest in connection with the work of the Trust, especially for the very full information given regarding the conditions of various modern cities, and the improvement and planning procedure recommended and adopted by them. Mr. Richards has much to say about the present condition of Calcutta, and it has to be admitted that the force and emphasis he uses are justified.

The author of the Report gives the following brief list of improvements required :—

(a) Urban built-up Calcutta requires about 21 miles of new wide main roads and eight miles of widenings. These would bring the city fairly into line with a western city as regards main road provision and traffic facilities.

(b) Urban built-up Calcutta has no street system : 2,500 acres are provided only with highly irregular lanes and passages. It would require the creation of about 110 miles of ordinary 30 to 40 feet streets to bring Calcutta into line even with the old built-up sections of European cities.

(c) Of the 2,500 acres, not less than 800 acres are slums of a much worse type than anything in Europe, and they require removal or remedy.

(d) 6,000 acres of suburbs inside the city boundary are growing up anyhow and require re-planning, roads, tramways, and development.

(e) 2,000 acres of land in Manicktola (outside the city boundary) need planning, sewerage, tramways, and development.

(f) 2,000 acres in Cossipore-Chitpore will one day become part of Calcutta. This area likewise needs re-planning at once.

(g) Bridge communication with Howrah needs radical improvement and augmentation. A second bridge is wanted ; it should be at Aheeritola.

(h) Sixteen defective out-of-date existing road bridges over railways and canals need re-construction and widening, or replacement by new bridges of two or three times the existing widths. Approaches and gradients also need improvement. New bridges are needed at several points, such as at Halsi Bagan.

(i) The dense built-up city is remarkably short of open spaces. Northern Calcutta especially is badly in need of a dozen good squares and playgrounds. A river-side promenade road would be as good as a park in North Calcutta and would be of very great use for traffic and the increasing river shipping, and is perfectly feasible of execution. Radial parks coming into Calcutta from south, east and north, plus plenty of small squares, would, perhaps, be the best system for Calcutta—given plenty of money and powers. Nearly all existing squares can be much improved at trifling cost.

(j) Private and public-company housing enterprise needs every possible encouragement at Calcutta, not only by suburban and tramway development, but by the British and European loan systems.

(k) Calcutta and Howrah are short by 60 miles of the normal allowance of tramway routes. There are no roads for them, either in the city or suburbs.

Specially instructive are the comparative tables showing street mileage per square mile :—

British Cities :	35	miles of roads per square mile.				
Continental ;,	30	„	„	„	„	„
Calcutta	7	„	„	„	„	„

The table of street widths is also of importance.

This table shows approximately that the cities of Europe and America usually possess some 40 to 60 per cent. of open space solely in streets and roads. The Calcutta average is about 13 per cent. and exhibits forcibly the streetless condition of the city.

Other cities possess from 300 to 400 per cent. more roads and streets. The total combined open space, in roads, streets, gardens, courts, etc., in the built-up areas of European and American cities (excluding parks and public gardens) averages roughly from 60 to 70 per cent. The Calcutta figure (improved by the Park Street area) is about 24 per cent. Without that area the figure sinks to about 18 per cent. This is congestion undreamt of in European and American cities. In Calcutta one can find solid blocks of 10 to 20 acres, in which the *total* combined open space of all kinds is *only 5 to 10 per cent.*, and the buildings will be from 3 to 5 storeys high. The writer minutely measured up the street space in two London "slums," condemned for demolition. One was in Westminster, and gave 24·6 per cent., the other was in Whitechapel, and had 26½ per cent., *in street area alone.*

The property was mostly two-storey poor-class residential. The *total* open space was about 40 per cent. They were considered very bad areas indeed. In Calcutta, by a large section of the public, those areas would, it is pretty certain, be considered orderly, wonderfully well planned, and by no means insanitary. This is no exaggeration; and it is with no pleasure that the writer sets the fact down. It is done to draw attention to the true state of Calcutta and the great need for educating public opinion.

The traffic problem is dealt with fully and many important considerations are put forward :

Present-day Calcutta traffic is but indicative of what it is assuredly going to increase to during the next few decades.

In the Howrah Bridge report it was shown in general, from the figures available to the writer, that Calcutta population is increasing at the rate of 17 per cent. per ten years; that Howrah population is rising at the rate of 33 per cent. per 10 years, and Howrah district at 13 per cent. per decade. Eastern Bengal Railway passenger traffic rose 180 per cent. between 1901 and 1910. Goods traffic increased by 80 per cent. between 1901 and 1911. From 1906 to 1910 East Indian Railway passenger traffic.

at Howrah station was flowing stronger and stronger at the rate of 33 per cent. per decade and Bengal-Nagpur passengers to and from Howrah station had increased by 129 per cent. between 1901-09.

Calcutta imports in the year 1910-11 were valued officially at £100,700,000, and exports at £100,500,000; these figures show an increased value of 170 per cent. and 156 per cent., respectively, since 1881, say about 57 per cent. and 52 per cent. per 10 years.

All these great increases have risen by steady growth, which continues. Vehicular traffic in Calcutta is rising at the extraordinary rate of 32 per cent. per decade.

Calcutta thus has splendid possibilities if she will but rise to them in the great manner they demand. At present the speed of Calcutta traffic is steadily and most injuriously being decreased by lack of main roads and streets. *The rate of decrease is fast rising.*

Some very telling figures are given about slum areas and again comparisons are made with cities in other parts of the world, much to the discredit of Calcutta :

Under European slum standards, Dr. Crake's slum areas would be multiplied by over 100 per cent. (see figures later on), and a very high percentage of the whole of Calcutta north of a straight line drawn from Howrah Bridge to the east end of Park Street at Circular Road, would, without any shadow of doubt, be classed as *very bad slum* if it were reproduced in London, Birmingham, Glasgow, Paris, Brussels, Amsterdam, Berlin, Vienna, Milan, Rome, New York, or any great modern city of Europe and America. Much of Northern Calcutta contains *only from 9 per cent. to 12 per cent. of total open space*, which is an appalling figure, and the buildings are generally *twice the height* of London, Birmingham and Liverpool. This fact of the much greater height of Calcutta slums magnifies the insanitary conditions. London and English city slums, of which we have heard so much, and which are steadily being cleared away at great expense, are commonly but two storeys in height, and all are provided with an incomparably better street system than we find anywhere throughout Calcutta, excepting only in the small Park Street area. In the exhibits accompanying this report are fair examples of bad London slums. Since the maps in question were printed these slums have been either cleared or marked down for demolition, yet they

contain the following percentages of open space in street area alone :—

Sheet No. vii. 93 has 25·52% open space in street area alone

Sheet No. vii. 58 „ 26·6% „ „ „ „ „ „ „ „
but they are condemned chiefly on account of their small back space, their internal dilapidated state, and their lack of up-to-date sanitary fittings.

In addition to this street area, these slums contain from 10 to 20 per cent. of open space in backyards, courts, etc. The *total* open space area in the worst Calcutta slums of 10 to 20 acres in one patch is *only about 5 per cent.* and in almost all Northern Calcutta the street area rarely exceeds 12 per cent. To ascertain these facts the writer has made a large number of calculations dealing with nearly all Calcutta. One example may be given. The figures have been checked and may be relied on. The big built-up rectangle enclosed by Harrison Road, Cornwallis Street, Grey Street and a portion of Strand Road and Darmahata Street, measures almost $1\frac{1}{4}$ miles from North to South by almost 1 mile from East to West. It contains about 735 acres, or about 2,227 bighas, taking the Bengal bigha at $\frac{1}{3}$ of one acre. *The open space contained in roads, streets and passages not less than 8 feet wide, including the longitudinal halves of Harrison Road, Cornwallis Street, Grey Street and the other western boundary roads, is only 9·87 per cent.* or about 150 per cent. worse, in street area alone, than any bad European slum-area. The condition of the worst patches in the sample 1 mile by $1\frac{1}{4}$ mile block is seen to be strongly accentuated when we consider that this is a big section of a city, and not one of the small patches of slum found in Western cities, and which not only have 25 per cent. of street area, but are surrounded by better areas having probably 30 to 40 per cent. of street area plus 33 per cent. of back area: and, further, are mostly of two-storey dwellings instead of three and four-storey dwellings such as are found in Calcutta. Nor is any European slum allowed to be overcrowded to an extent even approaching the condition now existing in Calcutta.

The percentage of total open space of all kinds in the 15 acres covered by Slum Improvement Scheme No. 1, now in hand, is but $6\frac{1}{2}$ per cent., a figure most damning and disgraceful to the city. In the West this figure would be considered absolutely appalling and unprecedented.

To aid in grasping the extent of land covered by dwellings already ascertained to be insanitary or congested in Calcutta, the writer calculated the area of the

Maidan in comparison with the acreage covered by Dr. Crake's coloured patches.

The total area of built-up city examined by Dr. Crake works out on the writer's check measurements at about 1,790 acres. Of this area, about 784 acres, or nearly 44 per cent., appears to be crowded tightly by houses of which from 15 per cent. to "over 30 per cent." are insanitary, *viz.*, there are 784 acres of what may be called "bad slum," *judged even by the very low Calcutta standard of what are sanitary conditions.*

The proportions work out as follows :—

Colour on 16" to 1 mile large plan. Exhibit No.	Percentage of houses classed as "insanitary."	Acres.
Coloured sienna	15 per cent. to 19 per cent.	222·7
„ blue	20 „ „ 24 „	265·5
„ pale yellow	25 „ „ 30 „	147·3
„ red	30 „ and over	148·8
		<hr/> 784·3

The whole area of the Maidan, *i.e.*, the great area enclosed by Chowringhec, Esplanade Row, East, Government House Grounds, Esplanade, West, the Hooghly, Lower Circular Road and Cathedral Road; and including Curzon Gardens, the whole racecourse, and all tanks, but excluding only the Fort, *works out to 783 acres.* The red area, containing over 30 per cent. of insanitary houses, would alone cover 9-10ths of the whole racecourse enclosure, including the grandstand and land behind it.

These figures, which have been checked, should enable readers to grasp the magnitude of the bad property problem in Calcutta. They also illustrate the tremendous piece of valuable work done by Dr. Crake. It should not be difficult to imagine the great sweep of the Maidan, nearly a 1,000 yards by 4,000 yards of open space, packed tight with high insanitary dwellings.

But, unfortunately, not even these figures convey at all a sufficient impression of the extent or nature of slums or bad streetless areas in Calcutta. The following other built-up blocks of the city, either not examined or not coloured by Dr. Crake, are all served only by passages and gullies, instead of by streets, are quite devoid of anything approaching normal open space, light, air, traffic and tram access, and have been built anyhow :—

- (1) The area for 600 feet on the west side of Bentinck Street (is better than most of what follows).

- (2) 60 per cent. of the area bounded by Chitpore Road, Canning Street, Clive Row, Clive Street, Lyons Range and the Lall Bazar Police Station buildings.
- (3) 80 per cent. of the area bounded by Canning Street, Mullick and Amratola Streets, Armenian Street and Old China Bazar.
- (4) 80 per cent. of the great triangle bounded by Upper Chitpur Road, Strand Road and Neemtolla Street.
- (5) 50 per cent. of the area south of Neemtolla Street as far as Pathureea Ghat Street.
- (6) 60 per cent. of the great area bounded by Upper Circular Road, Harrison Road and Cornwallis Street. The remaining 40 per cent. contains Amherst Street, one of the very few wide and pleasant residential streets in all North Calcutta, and laid out with some regard to beauty and tree-shade.
- (7) 80 per cent. of the great Wilderness enclosed by Free School Street, Dharamtala, Circular Road, Elliott Road and Royd Street.
- (8) Very considerable portions of the Fringe Area and of Kidderpore would without hesitation be classed by European practice as slum, or rapidly on the way to that condition.

Unless we apply a standard very far indeed below that of all other great modern cities, the above detailed areas must undeniably be classed as slum, and this is chiefly shown by their miserable streetless condition. Left to themselves, they will wholly develop into "bad slum."

Walking recently through London slums in process of rebuilding and reform in Kennington, under the supervision and design of Professor S. D. Adshead, F.R.I.B.A.—and upon other days in Whitechapel and Bethnal Green—the writer felt how thankful Calcutta might be if "London slum" could replace the awful Calcutta variety. The Kennington slum in Calcutta would be considered very decent property, and quite splendid as regards street provision; and it would have a death-rate of only one-third or even one-quarter of the most solid mass of Calcutta.

Calcutta, inside the area enclosed by Circular Road and the River Hooghly, contains no less than *twenty-two*

blocks of residential property, each having no street system, and served internally only by tortuous lanes, passages, and fragmentary lengths of narrow street. *The average size of each block is 100 acres.* The smallest is about 20 acres and the two largest about 270 acres each. The total area is about 2,200 acres, and can perhaps best be comprehended in the form of 22 squares of closely-built-up streetless property, each square measuring about 2,100 feet by 2,100 feet, or 700 yards by 700 yards, and they cover over 3 square miles. If we include areas outside Circular Road, then we get a total of 2,500 acres of streetless property.

Conditions like these can be found elsewhere only in Bombay and in Cairo and Constantinople (both dry cities), and Peking, Canton, Mukden and other Chinese cities. On a very much smaller scale they occur in Delhi and other Indian cities.

Some of the greatest Western slums appear to have been in Glasgow, many years ago. Their total area of about 90 acres is still spoken of with awe in British municipal circles—in Calcutta a single one of our 22 blocks would beat the Glasgow record hollow, both in area and intensity.

Mr. Richards insists on the need of further Town-planning legislation for Calcutta and its contiguous areas. In his preface he says :—

The important point is, that the Calcutta Improvement Trust *was not created under a Town Planning Act*, but only under a local Housing Act ; in fact, the Calcutta Act of 1911 is based almost word for word solely on Part I alone of the English Housing of the Working Classes Act of 1890—and this English Housing Act has itself been several times much amended since 1890. It may be said here at once, that *Calcutta and her suburbs cannot possibly be town planned, or controlled or be moderately improved under the existing Improvement Act.*

It has been the writer's duty to consider this great difficulty from all points of view and to find the clear solutions of this and all other serious problems that now confront Calcutta. Most of these difficulties can assuredly be well overcome by a Supplementary Act, but by no other means. This Act would confer the ordinary town planning powers. The report contains special information and also a draft for use in framing this Supplementary Act.

The writer has given a programme of much important work which can proceed while this absolutely essential

Act is being obtained. He has also, he believes, *shown the very best that could be done under the 1911 Act*, if Calcutta should, unfortunately, and unwisely, decide to abandon town-planning with all the great blessings it would confer on the city—both in the present and future.

The report as a whole (taken along with the two Main Road reports, already issued by the Improvement Trust) constitutes a notable addition to the data of Calcutta Improvement and also to the general volume of Town-planning literature. One feels that an investigation and report of this kind should have preceded the legislation that inaugurated the Improvement Trust ; but it is not even now too late to ask for the further powers that are undoubtedly required.

D. L. MONRO.

REVIEWS OF BOOKS.

SADHANA.—By Rabindranath Tagore. (Macmillan and Co.)

One is almost afraid to praise a book of Rabindranath Tagore's at this present time in case one should be accused of merely following a prevailing fashion, but it may be said with the utmost truth and sincerity that this book is worthy of a very high place in the literature of the world. Its value lies in the brilliant grouping of the thoughts and in the clearness and beauty of their expression rather than in their originality, but ability to synthesize and to express in such a manner as to reach the mind of the East as well as of the West is a gift which cannot be overestimated.

It is perhaps a mistake to make so much of Rabindranath's debt to the West as has so often been done. A recent writer, *e.g.*, in the *Quarterly Review* spoke of him as to "a large extent a member of a Western religious world." His debt to the West is undoubted; it appears repeatedly—in his Wordsworthian appreciation of the details of natural beauty, in his rigorous distinction between good and evil and his attempt to find a metaphysical and religious basis for the distinction, in his emphasis upon energy and upon human freedom and personality. But still he is Eastern,—more Eastern than Western, and for a due appreciation of his teaching his philosophical inheritance must not be forgotten. In the preface to this book the author tells us that he was brought up in a home where the texts of the *Upanishads* were used daily in family worship. The ancient scriptures of his country are not to him matters of antiquarian interest merely. "They are things of the spirit and endowed with boundless vital growth." His aim is to give to Western readers an opportunity of coming into touch with the ancient spirit of India as revealed in our sacred texts and manifested in the life of to-day. To a large extent this aim is accomplished, although those who have some familiarity with the ancient thought of India will sometimes wonder whether the spirit which is transmitted in this volume is not occasionally the spirit of Rabindranath Tagore and of modern Europe rather than of the *Upanishads* and ancient India.

It is the positive rather than the negative pantheism of his philosophical inheritance which attracts Rabindranath. He claims that ancient Indian civilization was in close touch with nature, whereas ancient Greek civilization was confined within city walls. This circumstance has had a great effect upon the attitude to nature of the two peoples. In the West nature has been looked upon as constituting a hostile world from which we have to win certain things at the cost of struggle, whereas the Indian has always emphasized the harmony which exists between the individual and universal nature. The forest was the site of "some great spiritual reconciliation where man's soul had its meeting place with the soul of the world." Our spiritual strength and salvation is to be found in bringing about this reconciliation, but in doing so we must not relapse into mere naturalism and materialism. We must remember the necessity of a central and spiritual point of view. It is in our own soul that we may find "the bridge leading to immortal being" and we shall discover this, not by reasoning or demonstration, but by a direct flash of intuition.

In pointing out the unity of the human self with the Divine Rabindranath is wholly Indian, but in his next and most important step he passes beyond the limits of the theoretical philosophy of many Indian interpreters of the Vedanta. He holds that the diverse manifestations of God are of equal importance with his Unity, and complains that Indian thinkers have been too exclusively occupied with the abstract Unity. They have determined not to see Brahma "in the commerce of the universe, in his aspect of evolution ;" thus "their intellect in its vain attempts to see Brahma inseparable from his creation, works itself stone-dry and their heart, seeking to confine him within its outpourings, swoons in a drunken ecstasy of emotion." According to Rabindranath, those who call the manifestation untrue are themselves steeped in untruth. The consequence of such an attitude is a resolute opposition to mere asceticism. Renunciation is of value only if it means giving up the lower for the sake of the higher. It is the height of foolishness to sacrifice the "grand self-expression of humanity" for the "incessant self-consecration." Another consequence is that we find in this book a most unusual emphasis upon activity as the highest form of religious expression. Seeing that the working of God is of so much importance, the highest destiny of man is to become a co-worker with God. It is when the soul "sleeps in

stagnation " that its enemies come upon it with overwhelming strength. It is not enough that he alone should work to relieve our want, but he should give us the desire and the strength to work with him in his activity and in the exercise of his goodness. In work we find a means of communion with God, and the idea is emphasized that in order to share in the Divine working we need not leave our ordinary occupations.

Further, this working of God is full of purpose and of purpose which is strongly ethical. In most Indian Philosophy, especially of the Vedantic type, the distinction between good and evil is apt to be a little shadowy, and there is a constantly expressed disinclination to regard ethical predicates as inapplicable to the ultimate. But Rabindranath holds that the perfect life is the universal life and that good is " the recognition of an inner kinship." Duty is not a bondage but a means of winning insight. " The bass and treble strings of our duty are only bonds so long as we cannot maintain them steadfastly attuned according to the law of truth." Wherever there is emphasis upon morality there must also be a high conception of human freedom, and so we are not surprised to find that Rabindranath provides in his philosophy for the freedom of the human will. The motive for the gift of human freedom is the joy of God which is always manifest in His working. But joy is essentially a shareable thing and of necessity finds its expression in love. True love again demands reciprocity, *i.e.*, the response of a will that is free. To secure such a will God imposes limitations upon Himself and grants to man the full freedom of personality. And the gift of freedom is not a merely temporary gift to be retracted when the soul " merges in the universal." Our author does not press unduly the pantheistic expressions into which he is sometimes betrayed. In our spiritual progress we have not to abandon anything that is of value in personality. Our closer union with God means increase in the fullness of our own personality. " The more vigorous our personality, the more does it widen towards the universal " and in our fullness of joy we shall enter into the joy of God, we shall hear the song of the eternal and shall " translate back the singing into the original joy."

The philosophy of Rabindranath ends in a note of resolute optimism, but we must confess to a certain amount of hesitation as to the warrant for this optimistic mood. It is true that he has emphasized the independence of human personality, but he has been prevented by his pantheism

from giving full consideration to all the implications of the self-limitation of God. The gift of human freedom must involve the risk that we may use our liberty wrongly, and further that we may persist in this wrongful use until our will has become perverted and we lose the desire for fellowship with the Divine. Our author seems to touch somewhat lightly upon this problem of the perverted will. We may gladly admit "that the essence of evil is impermanence" and that we exaggerate its importance if we imagine it at a standstill. We may admit also that sin is not original in the sense of being an ineradicable element in human nature. But we must not forget the fixity of habit or that a depraved habit of will may become a second nature. An optimism which is well grounded must take account of this deeper aspect of evil. There is a certain excess of sentimentalism in laying stress only on the joy of God and saying nothing of His sorrow. In the face of human sin the love of God must express itself in redemption which will deal with the perverted will and with those who are so blinded by sin that they cannot see their error. The religion of joy and beauty may be well enough for the cultured and the healthy-minded but it is beyond the reach of the soul that is sick. A true optimism cannot leave these latter out of account and in restoring them to health it will win a deeper joy and a clearer vision of beauty and of truth. It is still true, even as it was in St. Paul's day, that we may see the better and yet do the worse, and if faith is to be secure it must deal with this universal human experience more adequately than in the volume before us. There is a danger in minimizing the distance of the separation of the soul from God or the difficulties of the return. There is a danger that when we long for the time when "our emptied life may be dipped in the ocean" or "plunged in the deepest fullness" our sense of responsibility may be engulfed, or that when we say that "we must become Brahma" we forget that the ideal is communion rather than an existing unity and that it is possible for us *deliberately to refuse* to enter into this communion.

Yet when all is said and done this book remains one of the greatest gifts to the present generation, one which will preserve the most precious elements in the Indian religious consciousness, bind together the thought of the East and of the West, and heighten the spirituality of our common humanity.

COLLEGE VERSES.—By William Douglas, M.A., B.D., B.Phil., Professor of English, Scottish Churches College, Calcutta.

This booklet of verses consists of a few short poems, some of which are translations from foreign poets. They were all written, as the title indicates, when the author was a student at St. Andrew's University and they naturally reveal some of the common experiences of a Scottish student's life. They are on a variety of subjects and afford pleasant and interesting reading for an hour's leisure. The poems entitled "Life" and "Hope" will appeal to all serious readers and the plain truths are there simply and beautifully told. The translations are representative of nearly all European languages and we wonder why our friend Mr. Douglas has not invoked his Muse in favour of the Spanish or the Russian tongue. The portion especially entitled "College Verses" covers about ten amusing poems, of which "The Appeal for Contributions" repeats the universal lament of all editors. The best piece in this group seems to be the poem on "The University Magazine."

We wish the author success in his poetic compositions. May his Muse attain to loftier heights!

K. D. C.

SELECTED PROSE OF OSCAR WILDE.—With a Preface by Robert Ross. (Methuen's Shilling Library.)

By including in their shilling library some of the best of Wilde's work in prose and verse the publishers have earned the gratitude of all who love good literature, and, through the medium of this cheap but attractive series, Wilde's circle of readers will be very markedly increased. For he is well worth reading, as a perusal of this recent addition to the series shows. Mr. Ross has made a good selection except as regards the inclusion of three letters addressed to himself, which are commonplace and serve no other purpose than to advertise the selector.

The bulk of the extracts are taken from *The Decay of Lying*, *The Critic as Artist*, *De Profundis* and *Poems in Prose* but several other works are represented. The *Poems in Prose* are wonderful things, to be read often and drunk into the soul. They are touched with a spirit which, without being morbid, is delicately sad. And the style is remarkable, with a fragrance of language and a beauty of rhythm that are only granted to the true poet.

Wilde's ideal is that of Keats. The spirit that haunts most places in his work is the spirit of splendour. He is sensuous like Adonais but as free from anything coarse. The decorations and garniture of a lofty room delight him, and he can describe to perfection the effect of the sun-beam through a painted window upon the tattered garments of a king. Pictures too hold infinite enjoyment for Wilde, but he sets great literature above great painting or sculpture. Unlike many of his contemporaries he is almost entirely classical. Nothing but the artificial attracts him. Nature is disappointingly slighted as in the century preceding his. Sometimes there is a flash of it but he hurries on to linger over some man-made thing of beauty. It is this that may keep Wilde outside the company of the immortals. And yet, on reflection, such delicately beautiful prose as his is so rare that it would be indeed a pity if the world readily let it die.

A. C.

COLUMBIA UNIVERSITY INDO-IRANIAN SERIES. VOLUME I. A CATALOGUE OF THE COLLECTION OF PERSIAN MANUSCRIPTS (including also some Turkish and Arabic) presented to the Metropolitan Museum of Art, New York, by Alexander Smith Cochran, prepared and edited by A. V. Williams Jackson and Abraham Yohannan, Ph.D. New York, 1914. Cloth, 8vo., pp.xxv—187, ill., \$1.50 net.

"The collection of Oriental manuscripts catalogued in this volume was presented to the Metropolitan Museum in March, 1913. All of the manuscripts, a number of which are in certain respects unique, are handsomely illuminated and adorned with beautiful miniatures, the catalogue records the technical details, as well as matters of literary and historic importance connected with the Volume."

The book is a worthy record of a handsome gift. Beautiful facsimiles are given of the quaint, rich embellishments which formed so great a part of the scribe's art. The most interesting manuscript in the collection and the oldest (it was completed nearly five hundred years ago) is a copy of the Koran transcribed by a grandson of the famous Tamerlane.

The book contains a list of works of reference in English, German, French, Latin and Italian. It is surely a high tribute to the attraction of Oriental studies that in New York, the most modern of all cities, the wisdom of the ancient East has found votaries so enthusiastic.

W. D.

PRAGMATISM AND IDEALISM.—By William Caldwell, M.A., D.Sc. (A. and C. Black.)

This is an important book upon an important subject. The days of pioneer literature upon Pragmatism are past and gone. It has taken its place amongst established systems of philosophy, and we may now attempt to give it in its proper place in the development of thought, show its connections with older and, perhaps, antagonistic systems, and estimate its value both in regard to its accomplishments and its tendencies. This is the general purpose of the book before us. The author thinks that the time has come "for a general account of the whole subject and for an estimate of its significance." He does not confine himself to consideration of pragmatism as it at present exists or to the criticisms of other systems which it has already made good, but directs attention also to "the philosophy to which the pragmatists would fain attain and the modification of rationalistic philosophy they would fain effect." As the title of the book indicates, his main interest is in the relations of pragmatism to systems of rationalism and idealism.

The aim of the book has been worthily accomplished, and the adverse criticisms we have to offer have reference mainly to matters of arrangement. We confess that we cannot follow very easily the sequence of the chapters, and they present themselves to a certain extent as a series of detached essays rather than as a single whole. There is also a considerable amount of repetition which might have been avoided if the various arguments had been more closely linked up with one another. Further, we feel that a proper proportion has not been observed between the text and the notes. Much of the exceedingly valuable material of the notes might have been with advantage incorporated in the text. Indeed, in certain portions, the argument seems to move forward mainly by the help of the notes, and the text becomes of subordinate importance and little more than an index to the notes themselves.

But these are minor criticisms and the book as a whole merits the highest appreciation. The criticism of pragmatism is partly friendly and partly hostile, but it is always appreciative of the truth which is aimed at, even if it be not very clearly expressed and even if opposition to mechanical and rationalistic conceptions has betrayed the pragmatists into somewhat extravagant overstatement of their claims.

One of the most enlightening chapters is that in which Dr. Caldwell analyses the pragmatist movement in France, Germany, America and Britain. We are sometimes apt to look upon pragmatism as the ingenious speculation of one or two isolated, though world-famous, philosophers, e.g., William James and Dr. F. C. S. Schiller, and we forget that it is now a mighty movement in philosophy influencing the thought of the greater part of the civilized world. In pursuance of the same line of thought Dr. Caldwell shows that some recent philosophy of the most severely neo-Hegelian type has exhibited tendencies in the direction of pragmatism, thus indicating that it appeals to universal habits of thought if even those who are consciously most abhorrent are unconsciously attracted. We may now regard pragmatism as having passed beyond the stage of a mere method of approach to philosophy or of a destructive criticism of rationalism. It has become a philosophy of value rather than a philosophy of immediate consequences and is reaching out towards a fairly substantial metaphysics of its own. The metaphysics which it arrives at will never, of course, be of the academic and static type. It will, however, be an attempt to bring its peculiar method of thought into a definite relation with human culture in general and to exhibit its functions in relation to ethical, social, and religious questions.

In Chapter III Dr. Caldwell exhibits certain fundamental characteristics of pragmatism, emphasizing its objection to the idea of truth as something independent of human interest and activity. In this view of truth, consisting in hypotheses useful for action, there lurks the danger that we may fail to enquire for any ultimate reasons why the hypotheses which make up truth, should be useful. We may take action and consequences in too narrow a sense, forgetting that the whole of humanity is one great action and can be successful only if it harmonizes with a scheme of reality. It is well to point out, as Dr. Caldwell does, that pragmatism is deficient in its definition of reality and is inclined to make it depend too much

upon belief or interest—"Reality is what we believe at the moment to be such" "Reality means for every man that in which he is fundamentally interested." The consequence of this subjectivity is that we are left without a proper basis for ethics, notwithstanding the emphasis which pragmatism lays upon the practical life. The test or criterion of consequences seems to be little more than the degree in which they allow of further expansion or activity. Pragmatist ethics cannot discover any source of authority. All that it leads to in morals is "the conclusion that whatever brings about a change or a result, or a 'new formation' or a new 'development' of the moral situation, is necessarily moral, that 'growth' and 'liberation' and 'fruitfulness' and 'experimentation' are everything, and moral scruples and conscience simply nothing." It is his clear presentation of the fact that while practical activity may reveal the ideal to us it cannot in itself create the ideal, that Dr. Caldwell's criticism of pragmatism becomes most penetrating and valuable.

In his exceedingly interesting chapter on "Pragmatism as Americanism" our author brings pragmatism into close touch with the life that is lived beyond the bounds of academic philosophy. He considers that pragmatism is in fundamental agreement with the typical American attitude in its emphasis upon action and its radicalism both of thought and life. In particular he shows that pragmatism is an expression of many of the characteristics of the American University System. He feels, however, that if too much attention is paid to the utility of education and especially of philosophy the latter may cease to be catholic and also fail to realize the vast importance of the affiliation of new truth to old. It may also weaken the sense of responsibility and cause men to forget that they not only are called upon to act, but to act justly.

In conclusion Dr. Caldwell brings his thinking into line with the most notable developments of modern philosophy in the work of Dr. Bernard Bosanquet and Bergson. He offers an exhaustive and illuminating criticism of the recent *Gifford Lectures* of the former teacher, protesting that his theory of reality is "utterly inadequate as a motive or incentive to the efforts and endeavours of men as we know them in history and in actual life." He adopts a more friendly attitude to the philosophy of Bergson, finding in his anti-intellectualism and activism points of close similarity to pragmatism. He explains clearly the distinction between "anti-intellectualism"

and "irrationalism," pointing out that Bergson has often been wrongly charged with the latter. He shows that Bergson is simply fulfilling the aim of pragmatism in trying to attain a deeper view of human nature than exclusive devotion to the intellect has been able to reach. He regards Bergson as the greatest of all pragmatists, inasmuch as he supplies a conception which may integrate the somewhat erratic pragmatist tendencies into a consistent spiritual philosophy. At the same time criticism may find in Bergson much the same ethical deficiencies as have already been pointed out in connection with ordinary pragmatism.

We could have wished that Dr. Caldwell's concluding chapter had been less brief. The few paragraphs which it contains are so illuminating that, had they been elaborated, they would have served to draw together the threads of all the previous arguments and would have enabled us to appreciate still more adequately the great value of this noteworthy contribution to the study of what is probably the most important movement in modern philosophy.

W. S. U.

PANCHA SILA : THE FIVE PRECEPTS.—(Theosophical Publishing House.)

This is a useful summary of the Five Precepts of Buddha and should give a certain amount of insight into the practical aspects of his teaching. The note of this book is practical throughout. The author heaps scorn upon those who merely "take the precepts" and do not attempt to put them into practice. He effectively compares such "hearers of the law" to those who are content to purchase tickets for a railway journey and never board the train. The application of the precepts is broadly made, but not too broadly, and many wise counsels are given. We are inclined to think, however, that a little too much is made of the precept "Honesty is the best policy"! There are, also, traces here and there of the idealist fallacy that because thought is the most valuable thing in the world, therefore thought is constitutive even of the material in which thought works.

The book is a glorification of Buddhism and commends the cold common sense character of Buddhistic teaching, apparently oblivious of the historical fact that cold common sense teaching has never yet ruled the world. There is a persistent animus against Christianity, which

is strangely inconsistent with the calmness of Buddhism. The author accuses the Christian missionaries of disturbing the ancestral faith of the Burmese and putting nothing in its place. At the same time the author has much to say about the disturbing influences of closer contact with the outside world. Is it not the case that disturbance of ancestral faith may come rather from international communication, and that the weakness of the hold which Buddhism has upon modern Burmese life may be due to the inherent defects of the Buddhistic faith rather than to the labours of the missionaries? May it not also be the case that they *are* able to raise a positive structure amidst the ruins? It is curious to find in a treatise devoted to the extension of Buddhistic influence a commendation of non-persuasive methods. The highest duty of the religious teacher, according to this book, is simply to make known the truth. He has no desire to get as many as possible of his countrymen to accept his doctrines. "His method is the method of one who has perceived a veritable fact, sets forth simply and solely that which he has seen, and is perfectly satisfied there to let the matter rest. If others to whom he addresses himself in their turn perceive it, even as he has perceived it, and act accordingly, it is well. If they do not at once quite see the truth of which he speaks, it is still well." Surely this is not the attitude of one for whom truth is a burning reality. Surely he cannot calmly leave others in their indifference. Surely he cannot say "it is well" equally in regard to acceptance and non-acceptance.

WAITING.—By Gerald O'Donovan. (Macmillan & Co.)

The title of this novel to a certain extent indicates its main idea. It is a story of the growth of a new spirit in Ireland—a spirit of revolt against superstition and ecclesiastical tyranny and of receptivity to new ideas of social and national responsibility. The author seems thoroughly familiar with the life which he describes and a deep love for the people and the land is apparent on every page. The glamour of the mountains and the sea have entered into his very blood and have found expression in beautiful word painting. It is a simple life which he describes, but a life in which there is much natural refinement—a refinement which seems to have struck certain reviewers as somewhat exaggerated, but which

will appear perfectly natural to those who are familiar with country life in Celtic countries.

The plot of the novel is of the slightest and turns upon the love story of a young village schoolmaster. He is a Catholic with wider ideals than most of his communion and when the traditions of his Church and his love for a young Protestant maiden come into conflict he has no hesitation as to the course he will pursue. He braves the opposition of a bigoted village priest, who has power to deprive him of his means of livelihood, and incurs the odium of a civil marriage when the blessing of the Church is denied him. The amount of courage which this requires on the part of both his wife and himself is clearly indicated and his struggles help one to realize the hold which the priests still have upon the people. The effect of *Ne Temere* decree is well illustrated in the development of the story.

It would be difficult to discover whether the author is a Catholic or a Protestant. He is merciless in his portraiture of the overbearing and rapacious and cruel parish priest, Father Mahon, and some of his sentimental and dissolute confreres are hardly more kindly treated. Even the most loveable of the priests, Father Malone, fails at a supreme crisis and is told by the hero that he is less than a man. But at the same time the incidence of Catholicism upon the life of the people is most sympathetically treated and the old schoolmaster Driscoll, devout Catholic as he is, is one of the finest characters in recent fiction. One feels that the main teaching of the book is that the best Catholics are those who realize that the love of God is broader than the measure of man's ecclesiastical mind.

The constructive power of the author rather fails in the last few chapters, but, on the whole, this is a novel upon which a solid literary reputation may be based.

WAKE UP, INDIA.—By Annie Besant. (Theosophical Publishing House.)

In this reproduction of the lectures delivered a few months ago in Madras on the subject of social reform we have Mrs. Besant at her very best. The thoughts are clearly and forcibly put and the projects which are suggested are within the limits of the practicable and the sane. The first subject dealt with is that of sea-travel, and Mrs. Besant tries to show that in the ancient scriptures this is permitted and that in the later history there is much evidence of maritime commercial

enterprise. In the second lecture Mrs. Besant contends that child-marriage is in contradiction to the highest teaching of the Vedas, and that in any case the commands of the sacred writings would have to give way to the commands of the law of nature. The next lecture "On the Depressed Classes" is a much-needed appeal, and points out in no merely allusive terms the anomaly that the leading Indians are always claiming liberty for themselves while content to leave their countrymen in bondage. "Can you," asks Mrs. Besant, "for shame's sake ask for that larger liberty for yourselves, unless you break the chains on the limbs of the outcastes that you have bound around them?... You must rescue your own people before you can stand up with your faces to the sun and declare that you are worthy of freedom... See God in the face of your brother outcaste, and then as you remember God in him, God will remember you and lead you to the happiness which you desire." Other subjects treated of are "Mass Education," "Female Education" and "Indian Industries," and on each topic Mrs. Besant has something to say which is worthy of careful consideration.

PERIODICAL LITERATURE.

THE QUARTERLY REVIEW.—April 1914. (London: John Murray.)

The number under review caters to many tastes and contains a number of very attractive articles. It is unfortunate that amongst so many fine things one of the most unreadable efforts we have met should appear. Mr. Henry James writes on George Sand in so unintelligibly complicated a style—an especially disappointing thing with a subject of so fascinating a kind—that the reader turns with relief to the others.

Literature is represented by two articles, the first of which discusses Vaughan's impressions of his great contemporary, Milton, and the influence of the latter upon him. "Disillusion, prejudice, and the shadow of the White King stand between Vaughan and any endorsement of the great man of letters whom, as a literary model, he had venerated." The second is a fascinating study of the "Letters of Thomas Gray" by the President of Magdalen. Is the real Gray, he asks, to be found more truly in his letters or in his poems? The writer, after citing the opinions of Wordsworth, Cowper, Burns and others on Gray's poetry and prose, sketches in a

very interesting style the qualities and material of his letters. "Their interest," as one critic says, "lies in their infinite variety." They reveal the poet's wide reading and culture, his fine critical faculty, and not least the brilliance of his wit. The note of Gray's life and work is expressed in his line, "Far from the madding crowd's ignoble strife," and in the author's opinion both his poems and prose tell essentially the same tale.

"The Philosophy of Eucken" is excellently summed up in two short articles by Mr. Bernard Bosanquet and Professor W. R. Boyce Gibson respectively. The former, after sketching the main features in the philosophy of this great living thinker who would substitute life for thought as the banner of philosophy, gives his verdict on Eucken's activism. The "activist" exhibits the vice of Intellectualism by not giving cognitive thought its true value. "Cognitive thought, crushed within the pretended life-systems, has exploded them into a dust of ideas, by which no man ever actually lived." At the same time Mr. Bosanquet recognizes the great merits of his work. Professor Boyce Gibson is Eucken's champion and, in his article, answers the criticisms which have been directed against the German philosopher's message as a philosophy. Spiritual vision or mystical insight of some sort is essential "if constructive philosophy is to be in any genuine way distinguishable from Natural Science." Eucken's philosophy is an alliance of the theoretical with the creative reason, and is "lit up with a profound belief in the reality, intrinsic supremacy and full independence of the Spiritual Life." It should be welcomed as the most suitable rallying-point for the deeper thought of the present day.

Mr. Robert Dunlop's historical sketch of the English in Ireland will be eagerly read in the present crisis. He has given a very attractive account of the life of the English colony which came in with Henry II and was crushed in 1691. The decline of that colony is largely traceable to its constitution, and to the fact that religion was made the test of loyalty.

The most recent developments of the Home Rule crisis are discussed in the concluding article. The facts of "the military and naval *coup* against Ulster" are examined in detail, and the writer finds it difficult to accept the theory, that the Government were adopting purely precautionary measures. It seems a pity when a man lets his party spirit so far master him as to accuse his opponents of deliberate double-dealing. The article bristles with such accusations.

Amongst other interesting things are two articles dealing with recent events in the Balkans and one on "Lloyd's and Insurance."

THE LONDON QUARTERLY REVIEW.—April 1914.

One of the most interesting articles in this number is the opening article by Dean Caldecott on "The Unity of the Human Race." Dr. Caldecott quotes the evidence of physiologists in favour of the position that there are "no substantial differences in the fundamental structures or functions of the body between European and other races, either in the elementary structures concerned with, e.g., breathing and digestion, or in the higher structures concerned with consciousness." He further quotes the evidence of psychologists and anthropologists to show that "the peoples of the world are, apart from education and the influences of higher civilized life, alike in sensory perception, in memory, in imagination, in reasoning power, in instinct, in emotion, and even in self-control;" and then he seeks to show that the prevailing prejudice against the mixture of races does not rest on solid grounds. Another notable article is that on "The Jews of To-day and To-morrow," by William Hudson, which gives a description of the fluid state into which Judaism has come at the present day and shows how it is in danger of losing its identity. Saint Nihal Singh contributes an informative article on "Rajas and their Territories" in which there is given an admirably clear account of the relationship existing between the British Raj and the six hundred and ninety-three "Indian Princes" who exercise independent power under its protection. The article contains also a plea for decentralization in the Government of India and finds in the "fact that the British have adopted the principle of non-interference with the Rajas" evidence of the further "fact that they are beginning to realize that this is the age of decentralization—that it is wrong to kill local initiative and responsibility by having all schemes, large and small, worked out by a central bureaucracy, and put into effect through its agents." An article entitled "S. T. Coleridge as a Twentieth Century Force" does not fulfil the promise of its title, it being taken up almost entirely with an account of Coleridge and the influences which shaped him rather than with the forces which he set in motion. Other articles of interest are those on Browning's "Port-

raits of Women" by W. T. Davison and on "St. Paul the Hellenist" by W. F. Howard. Among the "Notes and Discussions" is an able criticism of the reforms advocated by the Simplified Spelling Society.

THE INDIAN REVIEW.—January 1914.

The January number of the *Indian Review* is as interesting as its predecessors. Its great merit is that it deals with topics of living interest. We do not always agree, however, with the opinions expressed. The first article, for example, is directed against the view "that a non-Christian people cannot appropriate the best that Occidental civilization has to offer without first flocking to the standard of Christ." And the argument used is the introduction of the Red Cross into Japan!! What the writer can mean by "Christianity" it is rather difficult to see.

The *Review* provides acute discussions on a great variety of topics. But, like most Indian magazines, it is still far too full of misprints and other mistakes. We presume that "fun-English" on p. 60 has been substituted by some fun-Indian for "un-English." A good example of "fun-English" is given on p. 64 where the "Barrack-room Balladmaker" is credited with the prophecy that "East and West shall never be twain"!!

Such mistakes, and one or two disfiguring advertisements, detract considerably from the value of the *Indian Review*.

THE THEOSOPHICAL PATH.—March—May.

The main interest of the March number is archæological. A very readable article on Pompeii takes us back to the days of Imperial Rome. "The Gods of the Ancient World" also breathes the spirit of the past and embodies a plea for proper interpretation of ancient mythology. The writer draws an imaginary future of how some of the symbols of Christianity may be misinterpreted by posterity and argues that we should do for the past what we wish that posterity would do for us. A beautifully illustrated article treats of some of the most interesting places in the lake district and there are the usual disquisitions upon certain Theosophical doctrines. The other numbers are not so interesting, but the articles are, as usual, beautifully illustrated. A tale of Egypt, "At the Tomb of Menala," is prettily told, but is somewhat spoiled by being forced into the service of a transmigration theory.

ACKNOWLEDGEMENTS.

GOVERNMENT PUBLICATIONS.

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No. 278, OCTOBER 1914.

THE REAL CAUSE OF THE WAR.

FOR many of us the stupendous war in which six European powers and one Oriental nation are now engaged has shattered the illusions of a lifetime. We never believed in the crafty ambitions attributed to Germany. The constant expansion of her navy was a stumblingblock, but we endeavoured to believe that her growing commerce required protection. In that commerce we perceived, as we thought, the only danger. We deprecated, however, any hostility, and urged that the right way to meet German competition was better technical education, the creation of more modern universities, and greater efficiency. We disliked England's ever-expanding naval programme. We had faith in German culture and in the growth of pacific influences.

We were wrong, terribly wrong, mainly because few English people are conversant with German political literature. For theologians, historians, men of science German is necessary, but those who read it for their special purposes seldom go further afield. Other readers confine themselves to Goethe and the classic writers. Hence few persons in England have had any real knowledge of the political teaching which has shaped the thought of modern Germany. If the average Englishman were asked what he thought of Herr von Treitschke he would reply that he had never heard of him. Of Bismarck, Moltke, Mommsen, Harnack he knows something, but even the name of Treitschke is wholly unfamiliar,

Yet Treitschke has inspired a great part of modern Germany with its ambitions. He is the Carlyle of German idealism ; he is the father of German militarism, the apostle of Germany's struggle for world-dominion. He is the origin of this deadly war.

Great events do not really spring from small causes. In comparison with the welter of blood and suffering in which Europe now lies the murder of the Austrian Crown Prince was a trifle. It could not have precipitated Armageddon. For the true origin of the most deadly war in history we must look to long-standing national antipathies, to definite national aims.

A brief examination of the steps by which the crisis was reached will make this clear. The immediate cause of the war was Germany's demand that Russia should demobilize. It may be said that, as the ally of Austria, Germany was bound to take notice of Russian mobilization. But it may be confidently asserted that no other nation, similarly placed, would have intervened in the same way. The matter was primarily one for Austria to consider. Why did Germany take the initiative ? Further, Germany, without any justification in the attitude of the French Government, declared war on France, and it was France, not Russia, that her troops invaded. And, finally, the protest of England against the violation of the neutrality of Belgium was disregarded. This was the protest of a Great Power, based on its treaty obligations. Why was it taken so lightly ? Why was so much surprise and indignation displayed when it was found that England meant to uphold her protest by arms ?

The reply is to be found in the teachings of Treitschke, and in the political speculations of Bernhardi, Treitschke's admiring disciple. Germany challenged Russia, because she had come to believe that she was the arbiter of Europe. Germany declared war on France, because it has been a cardinal doctrine of those who seek to make Germany a World-Power that France must be destroyed. Germany

disregarded England's protest because Treitschke and his disciples have taught that England is a sham Power living upon a reputation which is no longer deserved.

Possessed of the largest disciplined army in Europe and of a navy second only to that of England, Germany has felt free to make her will known and to expect compliance with her behests. In 1908 she incited Austria to annex Bosnia and Herzegovina and announced that she would support her ally by military force against any resistance by Russia. The threat succeeded. Russia, weakened by her war with Japan and by international discords, had to acquiesce in both the injury and the insult. More recently the seizure of Agadir signified German defiance of England's position in Europe. The affront was withdrawn because England showed an unexpected readiness to take up the gauntlet. But the rebuff did not deter the Kaiser from a second challenge to Russia which, it was fondly believed, would not be accepted. This foolish miscalculation, against which Germany was expressly warned by Sir Edward Grey, is a fair indication of German confidence in her position as dictator of Europe.

As for France, more than one speech of Bismarck proclaimed his regret that in 1870 he had not imposed terms which would have more thoroughly crushed French vitality. This view has only gathered strength with the lapse of time and in Bernhardt's Machiavellian book on *Germany and the Next War* we find this explicit declaration:—"In one way or another *we must square our account with France* if we wish for a free hand in our international policy. This is the first and foremost condition of a sound German policy, and since the hostility of France once for all cannot be removed by peaceful overtures, the matter must be settled by force of arms. France must be so completely crushed that she can never again come across our path." The fact that France has indulged in no aggression is immaterial. Hence, when Germany declared

war against Russia, it was not Russia that she invaded, but France, which had not mobilized and had not interfered in the quarrel.

It is, however, in the insolent treatment of England that the poisonous effect of the teachings of Treitschke becomes most apparent. The German Carlyle devoted much research and still more dishonest ingenuity to historical writings designed to prove that England's day has passed. Since the time of Cromwell she has been an imposture. By cunning and violence she has seized one-fifth of the globe, and, like a retired burglar who calls on the police to protect his property, she is clamouring for a halt in armaments, for arbitration and universal peace. To crowded class-rooms Treitschke denounced England as misgoverning the dominions which she had acquired by perfidy. She has shown no consciousness of the fact that India is religion incarnated. She has vulgarized Egypt. The Colonies are shivering under the British yoke. Her own people are degenerate. They have a love of peace which argues the slave and coward at heart. Intellectually England is bankrupt. In religion, in learning, in social development she is a failure, and, as Treitschke loved to tell his ardent disciples, "a thing that is wholly a sham cannot in this universe of ours last for ever." The sham to which he referred, as we learn from a friendly commentator, was England.

It cannot be surprising if generations of Germans reared on these doctrines looked upon England with contempt and regarded her commerce and her colonies as Germany's easy prey whenever the day came to strike. Nor can it be wondered at that the remonstrance of England against the proposed violation of Belgian neutrality was treated as a pious opinion which should be humoured because the appointed date of England's destruction had not arrived but which need not be complied with. This again was a miscalculation, but one in which all Germany was involved. So deeply has the insidious immorality of

militarism eaten into the German character that even so noble a German as Harnack was amazed and indignant when England showed that she regarded a solemn treaty as binding. That we should throw away the boon of German friendship in the interests of the small Belgian nation seems to Harnack a crime against civilization, an act of treachery against German culture.

Harnack, though a civilian, is even more imbued with militarism as a basis of international morality than the Imperial Chancellor or even General von Bernhardi. Dr. von Bethman-Hollweg has admitted in a fit of candour that the violation of the neutrality of Belgium was a wrong done to that country and to international honesty. Bernhardi, on his part, has argued that Belgium, by acquiring the Congo State, has infringed the conditions under which her neutrality was guaranteed. But Harnack, the most inspiring of German Biblical critics, sees no crime in the invasion of the territories of a small State.

It is important to realize this fact because it demonstrates that the war is not, as is sometimes supposed, the outcome of the Kaiser's pride and ambition. On the contrary, it is the war of a nation drugged with militarism.

What is militarism? It is the doctrine, preached with religious enthusiasm by Treitschke, that war is the one means by which the conflict of the nations can be decided, that the chief duty of a nation is to apply all its soul and all its strength to preparation for war, and that the strong nation has the right and is under an obligation to expand its power and influence by the fear which its sword inspires.

It is true that this worship of war is masked by a plausible moral purpose. War is to be employed to spread "the blessings for which German blood has flowed in streams—spiritual and moral liberty and the profound and lofty aspirations of German thought." But to secure this lofty end war is God's method. War must be declared

whenever a favourable opportunity presents itself. Germany must live for war.

This doctrine menaces every State in the world. It imposes upon every country the necessity of taxing itself to heap up armaments. It means that permanent peace is impossible, that international law is an edifice of shams, that the spectre of war must forever haunt the world.

It is this doctrine which England has challenged, and, unless the omens are unduly favourable, the world may hope that the shattered legions of militarism may prove that Odin is dead past recall, that the Sermon on the Mount needs no revision but declares eternal truths, that the sword is not master of the human spirit but a survival of man's brutish infancy, and that the true ideal of the human race is universal peace founded on justice.

JUNIUS.

THE INTRODUCTION AND SPREAD OF WESTERN MEDICAL SCIENCE IN INDIA.*

BY LIEUTENANT-COLONEL W. J. BUCHANAN, C. I. E.,
I. M. S.

*And not by Eastern windows only,
When daylight comes, comes in the light ;
In front, the sun climbs slow, how slowly,
But Westward, look, the land is bright.*
—A. H. Clough.

EUROPEAN Medicine and European Science were introduced into India in the earliest days of European trade with India, though long before that period India had felt the influences of contemporary knowledge in other countries and indeed had even attained considerable skill in surgery.

MEDICAL SCIENCE IN ANCIENT INDIA.

In early Sanscrit documents, as the *Rig Veda* (1500 B.C.) medicine is entirely theurgic and treatment mainly consisted of prayers, spells and incantations. In the Brahminical period (say 800 B.C. to 1000 A.D.) medicine was entirely in the hands of the Brahmin priests, and three great medical names have survived, *viz.*, *Charaka*, who is said to have flourished about the beginning of the Christian Era; *Susrata*, about Fifth Century A.D. and *Vagbata*, about the Seventh Century A.D.

The most remarkable of these was Susrata who wrote much on surgery. His book is described by the American Historian of Medicine as consisting "of purely fanciful lists of unimaginable parts of the body," he refers to 360

* Being to a large extent a review of the *History of the Indian Medical Service* (2 Vols., Thacker, Spink and Co. 1914) by Lieutenant-Colonel. D. G. Crawford, I.M.S. (retired). To Officers of the I.M.S. these volumes are of superlative interest, but they contain much which must also appeal to all interested in the history of the English in India.

bones, 800 ligaments, 500 muscles and 300 veins, and so on. He minutely divided up diseases and enumerated as many as 1,120, dividing them into two classes, natural and supernatural. He described fairly accurately the malarial fevers, which from time immemorial have existed in India; plague too was probably early known, as the *Bhagavata Purana* warns people to desert their houses "when rats fall from the roofs and die." The *Materia Medica* of India was rich, and we may presume the ancient physicians had the same love of drugs and polypharmacy which is so marked in their descendants of the Twentieth Century. In therapeutics great importance was attached to diet and regimen; and blood-letting, inhalations, gargles, enemata, emetics and baths were prescribed. Then, as now, especial attention was given to aphrodisiacs and poisons. In surgery (according to Sir Bhagrat Singhee) many important operative procedures were known, and Susrata has described over 100 different surgical instruments:—lancets, saws, needles, hooks, probes, forceps, syringes, etc. In fact, they knew almost every important surgical procedure, except the use of the ligature. Hæmorrhage was checked by cauterization, boiling oil, or pressure. They appear to have performed lithotomy, cæsarian section and cataract extraction.

To what extent the ancient Indian surgeons and physicians influenced Greek medicine or were influenced by it is a moot point. At the time of the invasion of India by Alexander the Great (327 B.C.) they certainly had a comparatively high reputation for knowledge and skill, especially in surgery.

As Mohamedanism spread in India "Indian medicine passed under Arabic domination and virtually ceased to be."* The Arabic physicians themselves were much influenced by Greek medicine. The Mohamedans first reached India, in Sindh, about 100 years after the death of the Prophet.

* Garrison, *History of Medicine*, 1914, p. 51.

We do not, however, here propose to discuss this interesting subject further. Our business at present is with the introduction and spread of Western, that is European, Medical Science in India. As we have said above medical science and trade came together, and the first European medical men formed part of the crews of the first European ships to reach Indian ports.

EARLY EUROPEAN SETTLEMENTS IN INDIA.

The Portuguese were the first of the European nations to visit and settle in India. On 8th January 1454 the Pope, in his omnipotence over things which did not belong to him, gave King Alfonso V of Portugal an exclusive right to all countries which might be discovered in Africa and Eastwards, and the first of the explorers to reach India was the celebrated *Vasco da Gama*, who reached the port of Calicut on 26th August 1498. Goa was captured by the Portuguese in 1510. The first explorer to reach Bengal was *Joao da Silveira* in 1518 and a fort was built at Hughli about 1537.

The Dutch entered the field about 1595 and founded a factory at Pulicat about 1610 and at Surat in 1616. It is also said that the Dutch expelled the Portuguese from Hughli in 1632 and founded Chinsura.

The French began early. In 1604 Henri IV granted a patent to a Company to trade with the East, but it came to naught, and their first factory was founded at Surat in 1668 and Pondicherry was started in 1674.

The Danes first reached India in 1616 at Tranquebar, but it was not till the end of the Seventeenth Century that they established themselves near Hughli.

THE EAST INDIA COMPANY.

As is well known the East India Company of England came into existence on the first day of the Seventeenth Century. A few earlier failures of expeditions to reach India are on record, but the first fleet of the Company sailed in December 1600, and consisted of four ships, the *Red Dragon*, the *Hector*, the *Ascension* and the *Susan*, and

on board these ships there served as Surgeons, RALPH SALTER, JAMES. LOVERING, CHRISTOPHER NEWCHURCH and JOHN GAMMOND, who are therefore claimed to be the first medical officers of the East India Company in India.

EARLY EUROPEAN MEDICAL MEN IN INDIA.

During the Seventeenth Century quite a number of European medical men worked in India and were pioneers of medical science in the East; among these may be mentioned GEORGE STRACHAN, a native of Kincardine in Scotland, who was Surgeon to the Factory, founded in 1616, at Ispahan. He had a romantic career, at first in the Near East and afterwards in Persia and in India. He seems to have been much mixed up in quarrels with the other Europeans while in India, in spite of which he remained there till near the end of 1622.

A better known name is that of FRANCOIS BERNIER (born 1620). He was educated at Montpellier, and reached Surat in 1658: soon after he entered the service of Prince Dara Shikoh, eldest son of Shah Jehan. Bernier visited Delhi in 1663 and went with Aurangzebe to Lahore in 1664-65. He travelled in Bengal in 1666 and returned to Europe through Persia in 1667.

NICOLAS MANUCCI, the Venetian, was another great traveller; he reached Surat in January 1656. He appears to have had no regular medical training, but nevertheless practised medicine at Lahore, Madras and Pondicherry up till about 1717. In his book, *Storia de Mogor* (of which an admirable summary has recently been published, from Irvine's big translation in four volumes), Manucci mentions several other European medical men whom he met in India. It is also on record that when Surman's Embassy reached Delhi in 1715 a French physician, MONSIEUR MARTIN, was in the employ of the Emperor Farakh Siyar. Many other names of European doctors are mentioned in the records and books of those early days. It is said that, in 1778, the Nawab Muhammad Ali had eight European

medical men in his service, three of whom subsequently entered the Madras Medical Service of the Company; one of the Nawab's physicians was Sir Paul Jodrell, who had previously been physician to the London Hospital.

In the year 1614 the English Company appointed Dr. John Woodall to be its Surgeon-General; he did not visit India; his business was to select medical men and provide drugs and equipment for the ships of the Company trading to India. Woodall had many disputes with the Company in London and in a period of retrenchment in 1635 his name was struck off; he died in 1643.

THE LEGEND OF GABRIEL BOUGHTON.

One of the most famous stories of the early English in India is what Lieutenant-Colonel Crawford calls the "*Legend of Gabriel Boughton*." Stewart (*History of Bengal*, page 251) relates the usual story of how, in 1636, a daughter of the Emperor Shah Jehan having been dreadfully burnt by her clothes catching fire an express was sent to Surat for an European Surgeon. Mr. Gabriel Boughton, Surgeon of the ship *Hopewell*, was sent by the Council; he went to the Emperor's Camp in the Deccan, and had the good fortune to cure the young Princess of the effects of her accident. Boughton in consequence became a great favourite at Court and "having been desired to name his reward, with that liberality which characterizes Britons, he sought not private emolument, but solicited that his nation might have liberty to trade, free of all duties, to Bengal and to establish factories in that country. His request was complied with."

Unfortunately the details of this romantic story cannot be verified.* The dates are clearly in error. The accident to the Princess Jahanara took place in 1643.

* In an article in *Journal, Royal Army Medical Corps* (May 1914) Colonel R. H. Firth gives the traditional story which is certainly wrong as regards the dates. He also states that Boughton was born at Newton-le-Willows in Lancashire in 1623, that he was originally intended for the Church and proceeded to Merton College, Oxford, but, later, obtained "a writership" in the East India Company in 1648; he gives the date of the accident to the Princess as 1654. The dates given in the text are from Crawford. (*Op. cit.*, p. 37.)

Boughton's mission to Agra took place in 1645, so he could only have been able to render medical assistance to the Princess for some "after-effect" of the burns (such as contractions, etc.) which may well have been of such importance to the patient as to evoke the liveliest gratitude of the Court. At the time of the accident the Princess appears to have been treated by a famous Lahore Physician, *Anitulla*. It is certainly a fact that Gabriel Boughton did obtain a *farman* from the Emperor Shah Shuja, with whom he was in high favour, presumably on account of his professional skill and success. The whole story is difficult to clear up, but the facts are : the favour in which Gabriel Boughton stood with the Imperial Court between 1645 and 1652; the accident to the Princess in 1643; and the grant of the *farman* by Boughton's aid from the Emperor Shah Shuja.

THE CAREER OF JOHN FRYER.

Another well-known Surgeon of the Western Presidency was JOHN FRYER. He was born about 1650 and took his M.B. degree at Cambridge in 1671 and was recommended for employment at Surat "as a skilful and experienced artist in his profession;" he reached Bombay in December 1673 and Surat in September 1674, he travelled on duty to Persia, spent three years at Surat and returned to England in 1682, took his M.D. degree at Cambridge and was elected a Fellow of the Royal Society. He published, in 1698, *A New Account of the East Indies*, a new edition of which has been recently edited for the Hakluyt Society.

Lieutenant-Colonel Crawford gives a list of twenty-five surgeons who are known to have served at Bombay between 1670 and 1730.

MADRAS AND THE COAST.

On the "Coast" (as the "Madras side" was then called) factories had sprung up and medical men were appointed. The Dutch had founded a factory at Pulicat

in 1610, but the first English factories were at Nizampatam (1611) and Masulipatam and Armagon on the Coromandel Coast (1625) and the first Surgeon's name to be recorded is that of JOHN CLARKE, who was appointed to the Fort at Armagon in 1630. During the later years of the Seventeenth Century Lieutenant-Colonel Crawford records the names and dates of twenty-three surgeons; of these few are well known and perhaps E. Buckley, Surgeon to Fort George 1692, is the best remembered. He held that appointment till 1709, when having resigned on account of ill-health he was immediately appointed "Land Customer" and Sixth in Council! He remained a Member of Council till 1714, when he died and was buried in Madras.

The name of another Surgeon, SAMUEL BROWNE, is on record in connection with an unfortunate accident. He gave an overdose of arsenic to Mr. James Wheeler, a Member of Council, who died. Browne was tried and acquitted by the Grand Jury. He was a troublesome fellow and often got into difficulties. He died in Madras in 1698. His name is to be found in the *Dictionary of National Biography*, which omits the far more important names of Gabriel Boughton and William Hamilton!

Another name of some importance is that of DR. R. B. E. BLACKWELL, surgeon at Fort St. David in 1693. He was accused of treason in arranging to hand over the Fort to the Nawab of the Carnatic, to whom he had rendered professional services, but the Council did not appear to have considered the accusation very seriously.*

BENGAL AND THE BAY.

In Bengal and the Bay the Company's first Factory was at Patna, but it lasted only for a year (1620-1) and had no direct connection with the gradual and fixed settlement of the English in Bengal, who came in from

* The poet, Oliver Goldsmith, in spite of his M.B. degree (probably of Dublin University) was rejected, as unfit for an appointment on the Coromandel Coast as surgeon's mate, by the London College of Surgeons on 21st December 1758.

the Sea to Balasore in 1651, Hughli in 1651, Kasimbazar 1659, Patna (again) 1659, Dacca 1668 and to Malda in 1676. The "Bay" settlements were then subordinate to those on "the Coast" or Madras, but became independent for a time under President William Hedges in 1682 and, finally, under Sir Charles Eyre in 1700. Meantime Job Charnock had made his famous "midday halt" at Sutanati and had laid the foundation of the "premier city" at Calcutta (24th August 1690).

The first medical name which has come down to us in the Bengal settlements is that of EDWARD WHITING in 1662. The next is RALPH HARWAR who became Surgeon at Hughli in 1672. The first surgeon mentioned in connection with Calcutta was a Dutchman, whose name, however, has not been recorded, but a DR. JOHN PLOMER was Surgeon in 1695; following him came WILLIAM WARREN, who was for eight years Surgeon at Calcutta, and later on got into trouble for bigamy.

THE SERVICES OF WILLIAM HAMILTON.

The greatest medical name at this period was WILLIAM HAMILTON; as Crawford writes "of all the medical officers who have served in India during the past three centuries, William Hamilton is probably the most famous, and is certainly the one who has been the greatest benefactor of his country," yet his name does not appear in the *Dictionary of National Biography*; though, as Lieutenant-Colonel Crawford tells us, those volumes record the careers of over sixty medical men of the Indian Services who did far less for their country.

Hamilton came out as Surgeon of the frigate *Sherborne*, he quarrelled with the Captain, left the ship and appears to have reached Calcutta about 1711, when he is recorded as appointed to be Second Surgeon to the Settlement.

The famous Embassy to Delhi, under John Surnam, left Calcutta in April 1714, with William Hamilton as

Surgeon. The Embassy stayed a long time at Patna and did not reach Delhi till 7th July 1715.

Soon after his arrival Hamilton was called in to treat the King, Farakh Siyar, for swellings in the groin. Hamilton's treatment was successful, and the King was enabled to celebrate his marriage with the daughter of Raja Ajit Singh of Jodhpur. The Doctor was liberally rewarded. The negotiations of the Embassy were much delayed owing to the King's illness, and the King found Hamilton's services so useful to himself that, apparently, he was loath to finish the business and let Hamilton return with the Embassy. He endeavoured to persuade him to stay on or at least to return to Delhi, but after the Embassy had received its *farman*, largely due to Hamilton's popularity with the King, the Embassy returned to Calcutta and was received with full honours on 20th November 1717. Hamilton had evidently been ill for some time previously, as he died within a fortnight of the return of the Embassy and was buried in the old Churchyard, Calcutta, where St. John's Church now stands. His tombstone was finally set up, where it is still to be seen, in Job Charnock's tomb.

FIRST HALF OF EIGHTEENTH CENTURY.

There is little of medical interest in the record for the first half of the Eighteenth Century, "the Company remained simply a trading Corporation, with three chief settlements independent of each other, and a few factories up-country." There still exists in the India Office an old list of the Company's Medical Officers, dated 1749, which contains the names of JOHN ZEPHANIAH HOLWELL and WILLIAM FULLERTON, both names intimately connected with most important events in the history of the English in India and to these some space must be devoted.

JOHN ZEPHANIAH HOLWELL.

John Zephaniah Holwell was born in Dublin in 1711. He was educated at Guy's Hospital and arrived in

Calcutta as "Surgeons' Mate" on board the *Duke of Cumberland* in 1732. Soon after he went up the Persian Gulf, next we find him at Surat, he then made voyage to Mocha and Jidda, and in 1736 we find him Surgeon at Dacca, but he soon came back to Calcutta, where in 1740 he is recorded as acting "Surgeon to the Calcutta Hospital" and also Alderman of the Mayor's Court and subsequently as twice Mayor of the City. He then went home on leave and on his return was appointed a "covenanted civilian" and twelfth in Council. He soon after took over the appointment of "Zamindar of Calcutta," a post which roughly corresponded to the duties of a Chairman of the Corporation and a Commissioner of Police. He was a man of great energy and initiated many much needed sanitary improvements, including the cleaning out and repair of great *Lal Dighi* tank, which still adorns Dalhousie Square, and which then afforded the only good water supply of Calcutta. In September 1755 he was preparing to again go on leave home, on account of ill-health, but the fates forbade and he was destined to see himself and the city go through much tribulation before that leave was availed of. We need not re-tell the terrible story of the capture of Calcutta by Siraj-ud-daulah, nor of the great part played by Holwell, who on Drake's desertion of the garrison, by universal consent took over charge of the city.

At the time of the capture there were at least six medical officers in Calcutta; Dr. Fullerton was on duty on board the ships, and one of them died, but the others escaped, somehow or other.

Holwell, as is well known, was one of the 23 survivors of the Black Hole after that fatal night in June and was sent in chains to Murshidabad. He was released after a few months and got his long deferred leave home in January 1757. While at home Holwell was nominated by the Directors to succeed Clive, but waived his claim; nevertheless on his actual return he acted as

Governor of Bengal for six months pending the arrival of Henry Vansittart. He erected the Holwell Monument at his own expense to the victims of the Black Hole. This monument was removed for sentimental reasons in 1821, but its facsimile was erected by Lord Curzon in 1902, and now stands near the site where the bodies of the victims were buried, or rather thrown into the ditch round the Old Fort (Clive Street corner of Dalhousie Square). Holwell lived in England after his retirement for 38 years and died at Pinner near Harrow on 5th November 1798. He was elected an F.R.S. in 1767. The medical profession may well be proud of Holwell, whom the historian ORME calls the "gallant defender of the Fort and the asserter of the reputation of the nation." Holwell was an assiduous student of the manners and religions of the peoples of India and was the first of the many medical officers in India who made a study of Indian antiquities.

DR. WILLIAM FULLERTON AND PATNA.

The next medical name of this period known to History is that of WILLIAM FULLERTON, the sole survivor of the episode known as the "Patna Massacre." Fullerton seems to have come out to India about 1745, and in 1750 he was appointed by the Court of Directors to be Second Surgeon in Calcutta, on Holwell having resigned that post. He was present at the siege of Calcutta but was on board the ships, presumably on duty, and so escaped capture. He had already made a lot of money, by trade rather than professional fees, as the sum he received as compensation amounted to well over two lakhs, and he is known to have speculated heavily in saltpetre in Bihar. Fullerton was transferred to Patna about 1760, and he was one of five English officers who assisted the Nawab of Bengal when he was attacked and defeated by the troops of the Emperor Shah Alam on 9th February 1760. The other four British officers were killed. Broome (in his *History of the Bengal*

Army, page 281) describes Fullerton's bravery in the following words :—

“The only European officer now surviving was Dr. William Fullerton, the Surgeon of the Agency, who assumed the command. Finding that the day was completely lost this little party commenced their retreat to the city, surrounded by the enemy, but by the coolness and steadiness of their conduct, keeping the latter at a respectable distance. One of the two gun carriages having broken down they were compelled to spike the piece and leave it on the field but the tumbril of the other having upset, Dr. Fullerton halted the party, deliberately righted it and then resumed his march ; by their cool and daring behaviour this remnant of the party succeeded in making good their retreat to Patna.”*

The Emperor then laid siege to Patna and Fullerton again distinguished himself in the defence.

Fullerton seems to have mixed himself up to an objectionable extent with native intrigue, and in a letter of 1761 we find the Governor Vansittart describing him as “a great Bane to Society and the Company's Service.” He went home in 1761, but re-appears again in 1763 and again in the position of Surgeon to the Patna Agency. By this time affairs had drifted into war against the new Nawab Mir Muhammad Qasim. The English troops attacked Patna and captured it, but being driven out by the arrival of reinforcements, they were defeated in a battle at Manji in the Saran District. Fullerton was taken prisoner along with other officers. The Patna prisoners were murdered on the night of 5th October 1763 (The Patna Massacre) by the infamous Walter Reinhardt (known as Sombre or Somru).† In this massacre 16 civilians, 6 artillery officers, 18 infantry officers, 3 surgeons and 8 English merchants, in all 51 Europeans, were slain. Why Fullerton was spared is not quite clear : one account says “the Nabob did this with a view to employing him

* Quoted by Crawford, *Op. cit.*, Vol. I, p. 179.

† See *Diary of Three Surgeons of Patna*, edited by Firminger, for the Calcutta Historical Society ; see also Beveridge, *Calcutta Review*, 1884, No. 158, page 371 (quoted by Crawford).

to Treat for Peace." Broome (*History*) quotes the *Sair-ul-Mutakerim* which says that Fullerton "by assisting professionally most of the Grandees of the Court had endeared himself to them;" possibly both accounts are correct.

Fullerton remained at Patna for two years after the massacre. His conduct generally was the subject of a special inquiry, he was acquitted by the Council of serious default, but was seriously censured for not mentioning an important letter from Nuncomar. Fullerton resigned the Service in 1765, sailed for England in April 1766 and disappears from History. Lieutenant-Colonel Crawford sums up the character of Fullerton in the following words :—

"The service may well be proud of him as their first * representative. Throughout the 20 years of his career we hear much in his favour and little against him. . . . His one great mistake, which finally ended his career, was his failure to press home the evidence against Nanda Kumar (Nuncomar) in 1764. Had he done his duty on this occasion in Court, as well as he did in the field at Moshsinpur and Patna, he might have saved much trouble, eleven years later, to Warren Hastings; and the transaction, on which one of the gravest charges against the Great Proconsul was based, would never have taken place."

THE FOUNDATION OF THE BENGAL MEDICAL SERVICE, 1st JANUARY 1764.

The next great event in medical history in India was the foundation of the Bengal Medical Service, by orders passed in Fort William Consultations, dated 20th October 1763, by which the individual medical officers serving in the Bengal Presidency were, with effect from the 1st January 1764, combined into a regular medical establishment with fixed grades and rules for promotion.

The 150th Anniversary of this historic event was duly celebrated in Calcutta, on 14th February 1914, by a public dinner given by the members of the Service at the United Service Club.

* By 1st January 1764 when the Bengal Medical Service was established Fullerton was the senior medical officer in Bengal. (Crawford, page 195.)

The Madras and Bombay Medical Services appear to have come into existence about the same period, but no orders regarding the formal constitution of these Services seem to have survived.

From the earliest times the East India Company sanctioned a medical officer, when one was available, for each of their permanent factories, and in the above-quoted Consultation of 20th October 1763, the distinction between men of the same service in Civil and in Military employ is clearly laid down.

In a Consultation of the same date (20th October 1763) as that which constituted the Bengal Medical Service a scheme of Major Carnac is discussed for the organization of the Bengal Native Army into 12 battalions, each consisting of 10 companies; a "Surgeon's mate" was to be attached to each battalion, assisted by a "Gentoo Doctor." At the time of the English War against the French in the Carnatic it was found necessary to appoint medical officers to accompany the troops in the field, in addition to those stationed at the factories in civil employment, and between 1745 and 1760 the numbers increased rapidly. The surgeons then were all liable, as now, to transfer from civil to military duties and *vice versa*; the seniors as a rule holding the civil posts. With the increase of the armies in the three Presidencies and the increase of factories and stations the medical department also increased in numbers.

It is not our intention here to trace in detail the history of the Indian Medical Service, which has been done so ably and with such completeness by Lieutenant-Colonel D. G. Crawford, in the volumes to which we are indebted for so much of the above account.

It is, however, worth noting that from a very early date the East India Company insisted upon an examination as to the fitness of each applicant for a post, and even so early as 1622 we find several references to such examinations. (Sainsbury's Calendar of State Papers, Vol III, 1622-24.)

We have already referred to the appointment by the Directors of John Woodall to be Surgeon-General in London; his duties mainly consisted in selecting young medical men for appointments in India and in arranging for the proper medical outfit for the Company's ships. Local appointments were often made in India to fill up vacancies, but we read from time to time of the objections of the Directors in London to such provisional or temporary appointments. Many foreigners were appointed also at various times, but in 1853 British nationality was made a condition of appointment, *all natural born subjects of Her Majesty*, and this was confirmed as the rule, in the India Acts of 1853 (Acts XVI and XVII Vict. Cap. 95).

COMPETITIVE EXAMINATIONS.

The first open competitive examination for the Service was held in January 1855 and the list of successful candidates was headed by S. C. G. Chuckerbutty, one of the Bengali students who had gone to England with Goodeve ten years before, and who had already served in the uncovenanted service from 1850 to 1854. Only twice since then has the list been headed by an Indian, in July 1910 and July 1913. Since then up to August 1913 no less than 109 Natives of India, counting only those with pure native names, have entered the services, but in the more recent examinations in 1913 and 1914, a considerable number of Indians have been successful.

The Service was closed to entry from 1st October 1860 till 1st April 1865, and no new admissions were made, as the oft-discussed question of amalgamating the I.M.S. with the Army Medical Department was under consideration, but was wisely rejected. At this examination, in April 1865, six men who had previously entered the A.M.D. threw up their appointments and successfully competed for the I.M.S.; among them were the names of R. Harvey and J. Cleghorn, both of whom rose to be Heads of the Service. This batch of April 1865 was

headed by Kenneth Macleod, for many years well known as a Surgeon in Calcutta, who is still living in retirement at Netley.

ARMY MEDICAL SCHOOLS.

The first Army Medical School for the special training of young medical officers was started, as a result of the Crimean War, at Fort Pitt, Chatham, in 1860. The Royal Victoria Hospital at Netley was opened in 1863 and the first session of the Army Medical School there began in April of that year. Netley remained the home of this school till, after the South African War, it was decided to reorganize it and a new Army Medical School and Staff College was built at Millbank in London and opened in September 1902.

It is, however, more than doubtful if an Army Medical School in England is the best place for training Medical Officers for work in India. A military course at Aldershot for Medical Officers before coming out to India is certainly essential; but for the study of *tropical* diseases, tropical people and tropical languages undoubtedly the best place is amid the vast resources of the great hospitals in our Presidency towns, supplemented by special work in the schools of Tropical Medicine, now in the process of formation in Calcutta and Bombay.*

THE SUBORDINATE MEDICAL SERVICES.

One of the most marked differences between Western medical practice in India and in Europe is the existence of different grades or classes of medical men. In the British Isles all medical men must have taken a degree or diploma recognized by the Medical Council, and though the various Schools, Colleges and Universities have their own examinations, which vary in "stiffness," nevertheless they are all approximately of one standard, and the one portal for practice is the possession of this registered qualification.

* This has just been sanctioned by the Secretary of State's Despatch dated 17th April 1914.

In India such is not the case, and as is well known at present there are several grades and degrees of qualification ; we have therefore medical men practising under very different qualifications, *viz.*, degrees or diplomas from the various Licensing Bodies in the British Isles ; Indian University degrees, the L. M. and S. and the Licence of the vernacular medical schools, not to speak of various unrecognized new schools with varying grades of merit and equipment which have sprung up within the last few years in the large cities. We have consequently (1) the Europe qualified men, (2) India qualified men, (3) the Licentiates (L. M. and S.) who are usually called "Assistant Surgeons," (4) Military Assistant Surgeons, trained partly at Government expense and primarily for service with British troops and (5) the Sub-Assistant Surgeons, Civil and Military.

In any account of the growth of Western medicine in India notice must be taken of these classes. Again, there was and to some degree still is, what is called in official parlance the "Uncovenanted" Medical Service ; men with British qualifications, who for various reasons obtained Government employment without entering the regular Government Medical Service (the I.M.S.).

We may also refer in passing to the ever-increasing number of British qualified men who have come out to India and settled down to practice in the big cities and in the planting districts of Assam, Tirhoot, etc. There is, moreover, a large and increasing body of practitioners, Indian and European, who hold no Government appointment and form what of late years has been called the "independent" medical profession. With these we are not here concerned, but must briefly say something of the other Government Medical Services.

THE UNCOVENANTED MEDICAL SERVICE.

Even so early as the end of the Eighteenth Century we find medical men practising in India and sometimes

holding appointments under Government who were not members of the Company's regular Medical Service.

The Uncovenanted Medical Service "seems to have crept gradually into existence during the second quarter of the nineteenth century" (Crawford) and no formal orders constituting such a service appear to exist. The Court of Directors were always extremely jealous of any attempts on the part of their representatives in India to make such appointments, but at times of stress, war, famine, pestilence, such appointments were made and became gradually recognized.

The Uncovenanted Service is now gradually dying out, and we only know of one appointment to it, in Bengal, of recent years.

THE SUBORDINATE MEDICAL SERVICES.

From earliest times the Company's medical officers employed indigenous assistants in their hospitals. These men if employed when young, undoubtedly picked up a considerable amount of useful knowledge in the course of their hospital duties, and from these small beginnings arose the four existing, so-called, "Subordinate" Medical Services, *viz.* :—

1. The Military Assistant Surgeons.
2. The Civil Assistant Surgeons.
3. The Military Sub-Assistant Surgeons.
4. The Civil Sub-Assistant Surgeons.

In the earlier days the humble assistants of the hospitals were known as "Country Doctors," "Black Doctors," "Black Assistants," "Apothecaries" and "Native Dressers."

THE INDIAN SUBORDINATE MEDICAL DEPARTMENT.

The military subordinate medical department was definitely constituted in Bengal, as such, over 100 years ago by General Order, dated 15th June 1812, and by Royal Warrant of 12th March 1894 this service was given the titles of Assistant Surgeons, and Honorary Commissions,

as Captain and Lieutenant, were given to the higher grades. Many officers of this Service have reached a high rank, *e.g.*, Assistant Surgeon Joseph Anderson received the Persian Order of the Lion and the Sun ; Major T. H. Hill became C.I.E. in 1901, and Arthur Fitzgibbon got the V.C. for gallantry at the Capture of Taku Fort in China in 1860. Many officers too rose to obtain Commissions in the I.M.S. under the Company's rule of nomination ; and one of these officers, John Bowron, born February 1799, became Surgeon in 1840 ; retired in 1851 ; and died at Brighton *over 100 years of age* on the 5th March 1899. Many of these Military Assistant Surgeons have gone to England and taken medical degrees or diplomas and entered the I.M.S. and risen to high rank, *e.g.*, Colonel Patrick Hehir, M.D., F.R.C.S. (Edin.), I.M.S., a well-known writer on many medical and sanitary subjects, who was promoted to that rank in 1912. A large reserve of these officers serve in Civil employ, either as Civil Surgeons, or in Sub-charge of the large hospitals, asylums, etc. The term "Subordinate" is rightly resented by them, and it is hoped that it will be abolished by the Report of the Royal Commission on the Public Services in India.

THE SUB-MEDICAL DEPARTMENTS.

The Civil Sub-Medical Department is now often called The Provincial Medical Department. In Bengal this service appears to date from 1833, when a scheme for training a certain number of the best "Native Doctors" in the army, to form a superior grade, was started. A school for training "native doctors" was opened in Calcutta in 1822, and was transferred to the new Medical College in 1839 ; the title of "Assistant Surgeons" (formerly used in the commissioned ranks of the I.M.S.) was granted to these medical men in 1874, and in 1898 a certain number of Civil Surgeoncies in each Province was reserved for senior and selected Civil Assistant Surgeons. It is to be

hoped that the term "Subordinate" will also be eliminated from the title of this service ; by analogy with other Civil Services the proper title is "Provincial Medical Service."

THE MILITARY SUB-ASSISTANT SURGEONS.

A native medical staff attached to the native regiments existed over 150 years ago, and a General Order regulating these appointments was published on 22nd June 1822. They were at first educated in Calcutta at the Medical College, but since 1853 and 1860 these men have usually been educated at the schools opened in those years at Agra and at Lahore.

CIVIL SUB-ASSISTANT SURGEONS.

This service was formally constituted as "Civil Hospital Assistants" in Government of India Resolution, dated 9th January 1878 ; their pay and prospects were improved in 1901 and again in 1910, and in April 1910 the inadequate and misleading title "Hospital Assistant" was abolished and the more suitable designation, "Sub-Assistant Surgeons," was introduced, or rather revived, and applied to this most useful class of medical men.

Many of these men are well educated and become skilful physicians and surgeons. It is much to be desired that arrangements be made for allowing the best of them to rise to the higher grade of Civil Assistant Surgeons.

HOSPITALS IN INDIA.

We have above given an account of gradual introduction of European medical men into India and of the various "services" and medical "departments" which in the course of time arose. We may fairly assume that as soon as Medical Officers began to treat the rank-and-file of regiments or the subordinates in the various settlements and factories the need of a hospital or convenient place for so treating them must have been felt, and doubtless many temporary arrangements must have been made, but we hear nothing of anything like a regular hospital till the

years 1664 in Madras ; 1670 in Bombay ; and 1707 in Calcutta.

MADRAS HOSPITALS.

The first hospital was opened in Madras in 1664. Crawford quotes the letter on this subject from Love's, *Vestiges of Old Madras**. A house belonging to a Mr. Cogan was rented "at 2 pagodas* a month" for the soldiers in Fort St. George. This hospital was enlarged in 1679. The *second* hospital in Madras was built in 1679-88 from public subscriptions at a cost of 838 pagodas. It stood in the Fort near the Church. The *third* hospital in Madras was built during the Governorship of the celebrated *Elihu Yale* (a name known in two hemispheres) ; it was in use from 1690 and stood in James Street in the Fort. It was a handsome building, costing 2,500 pagodas. DR. BROWNE appears to have been its first medical officer and he was succeeded by DR. BULKLEY. At first the hospital was maintained by the Church and Vestry but in 1698 the charge of maintenance was taken over by the Madras Council and its doors were thrown "open for all truly necessitous patients, whether belonging to the Garrison or Town." Another hospital was opened in 1714 but was reported as ruinous in 1728, when a house was temporarily hired to replace it. A Naval Hospital was opened in 1745, during the French War ; and later, in 1808, another, which was used up till 1831, after which date the few sick sailors were treated in the Military Hospital. Madras was in the hands of the French from 1746 to 1749, on its recovery by the English the hospital was converted into barracks and "twelve houses" were taken up for use as a hospital and were fitted up and opened as such by 1753, the Surgeons being ANDREW MUNRO and ROBERT TURING. After much patching and repairing this hospital was demolished in 1757, and some new houses, near the site of the present General Hospital, were used in its stead. During the siege

* Up till 1818 the pagoda was the standard coin in Madras ; it was worth three and a half rupees ; so that 2 pagodas equalled 7 rupees (then worth 2s. 6d. each) or 17s. 6d.

of Madras by the French in 1758-59 two churches were used as hospitals, being within the Fort ; these remained in use for 13 years, till in 1770 the Surgeons represented the urgent need of a new hospital, and by October 1772 the new hospital was in use, having cost about 42,000 pagodas. From this hospital of 1772 the present Madras General Hospital has descended, the actual buildings having been from time to time renewed. It was for many years a Civil and Military, European and Native Hospital, and it was not till 1899 that the whole block of buildings became a purely civil institution.* The Madras Royal Victoria Caste Hospital was opened in 1885. A separate Native Hospital was opened in 1799 ; and a separate Leper Hospital, which has now developed into the Madras Government Leper Hospital, was opened in 1816. The First Lunatic Asylum was opened in October 1794 under the superintendence of Assistant Surgeon *Valentine Conolly* (father of the Captain Conolly who was murdered with Colonel Studdart at Bokhara in 1842). He was succeeded by Dr. DALTON † who built a new asylum on the site now occupied by the Madras Christian College. The present Lunatic Asylum, since much enlarged, was occupied in 1871 and cost 2 lakhs. Little is known of any early hospitals in the Madras Mofussil, but Crawford refers to six as existing in 1842.

BOMBAY HOSPITALS.

The first hospital *in India* appears to have been at Goa, but in Bombay ‡ itself we hear of none till January 1677 and we read of the fines paid by two officers for fighting a duel being handed over towards the funds for

* A new General Hospital is now under consideration at Madras (1914) at an estimated cost of eighty lakhs.

† Dr. James Dalton's wife, C. A. Risto, who died in Madras in 1813 was said to be a daughter of King George III. by the "Fair Quaker" Hannah Lightfoot. It is more likely she was Hannah's grand-daughter. (See Crawford's History of I. M. S., Vol. 2, p. 417.)

‡ In 1698 Dr. John Fryer wrote that when he was in India between 1672 and 1681, there existed at Bombay "neither church nor hospital, both which are mightily to be desired." Crawford, Vol. 2, p. 393.

building such an institution. Another hospital was built in 1733, near the site of the present Great Western Hotel, and in 1769 an old naval hospital was rebuilt; a sepoy hospital existed for a couple of years, 1783-85. Forbes (*Oriental Memoirs*) mentioned in 1784 three large hospitals in Bombay; "one within the gates for Europeans," which is the forerunner of the present General Hospital.

The celebrated *Jamsetji Jijibhai Hospital* was founded in Parel Road in 1843, at the joint expense of the Company and of Sir Jamsetji Jijibhai and formally opened in 1845.

The Gokuldas Tejpal was completed in 1847, nearly half the cost being borne by Gokuldas Tejpal. The Cama Hospital for Women and Children was opened in 1886. The Lunatic Asylum at Colaba was established in 1826 and the Leper Hospital at Parel in 1891. The Jehangir Ophthalmic Hospital was opened in July 1866.

CALCUTTA HOSPITALS.

Even so late in the history of the settlement at Calcutta as 1707 we read of there being no regular barracks and hospitals for the Company's soldiers and sailors "who lodge about the Town;" it was therefore decided to build a hospital and soon a "pretty good hospital" was in existence, as testified by Captain Alexander Hamilton, though *takhtaposhes*, or ordinary country beds, were still wanted in 1713. This, the first Calcutta Hospital, was destroyed at the capture of Calcutta in June 1756, but a temporary hospital was occupied when Clive retook the city, a house belonging to Dr. Gray being purchased for Rs. 15,000.

A new hospital was decided to be necessary in 1762 "at Surnam's" (Kidderpur); but this project never materialized.

In 1764 Mr. Kiernander's "Garden House" was examined and surveyed and was handed over to Government for use as a hospital on 20th June 1769. The owner,

the 'Rev. Mr. Kiernander, contracted not only to hand over his Garden House but to build the necessary additional wings, etc., at a cost of Rs. 98,000. The West wing was built by April 1770 and the East in June of the same year.

This was the present *Presidency General Hospital of Calcutta* and most of the old buildings remained in use till between 1902 and 1908 they were gradually replaced by the present fine buildings at the cost of Government. This hospital was therefore the third to be opened in Calcutta, the first was that of 1707-08, the second being the temporary building in the Fort in 1757. The first *Native Hospital* for the poor was opened in 1792 and Rs. 600 a month given for its upkeep.

The *Mayo Hospital*, part of the funds for which came from the Lord Mayo Memorial Fund, was opened in 1874.

The *Medical College Hospital* began, in April 1837, as a small clinical hospital with 30 beds and an out-patient dispensary. In 1844 Babu Mutty Lal Seal gave a valuable bit of land on which the College Hospital was built, the name of the donor's son being preserved in the out-patient department. The foundation of the College Hospital was laid with full masonic honours by Lord Dalhousie on 3rd September 1848 and the building was completed early in 1853 at a cost of £20,000. The chief additions have been the *Eden Hospital* in 1881-82; the *Ezra Hospital* in 1887; the *Shama Charn Laha Eye Hospital* in 1891 and the great surgical block named the *Prince of Wales' Hospital*, opened in 1911, at a cost of over 10 lakhs.

The *Campbell Hospital*, at Sealdah, was opened in July 1867 and in 1873 was transferred to Government as the hospital of the Medical School. It was very largely rebuilt in 1908-10.

The *Sambhu Nath Pandit Hospital* at Bhowanipur was opened in 1897, out of funds contributed by Government, by the Corporation and from the endowment of the old Sambhu Nath Dispensary which was absorbed into the new hospital.

Some sort of a *Lunatic Asylum* existed prior to 1787 and in August of that year sanction was given for a new Asylum. Even in the year of grace 1914 the arrangements for the housing of lunatics in the premier city have been the subject of much deserved criticism and will not be settled till the long discussed scheme of a modern Lunatic Asylum at Ranchi, or elsewhere, is finally settled. An Asylum for insane sepoys was opened at Monghyr in 1795 which was closed in 1831. The *Central Asylum* at Berhampore was much enlarged in 1905, but is still too small for the needs of the Presidency.

In 1804 a scheme for building hospitals at Dacca, Patna, Murshidabad and Benares was discussed. One outcome of this was the Dacca Hospital (later called the *Mitford Hospital* after Robert Mitford, Judge of Dacca, who died in 1836 and left over 1 $\frac{3}{4}$ lakhs for the hospital). This Mitford Hospital was built in 1854, and 60 years later schemes are in hand for rebuilding and enlarging it.

The *Muzafarpur Hospital* was built by Dr. Kenneth MacKinnon, the Civil Surgeon, in 1831 and within the last 10 years it has been rebuilt and enlarged.

The *Imambara Hospital* at Hughli owes its origin to Dr. Thomas Wise, Civil Surgeon, and was opened in 1836.

BURMA HOSPITALS.

A Dispensary was opened in Rangoon in April 1854, a hospital in 1871 and the fine up-to-date General Hospital in 1911.

MEDICAL EDUCATION IN INDIA.

Under the Hindu System instruction was given individually by masters to pupils; no regular classes existed. Medical schools to teach the Yunani or Græco-Arabian system of medicine are said to have been opened but no accounts of them have survived.

CALCUTTA.

The first real Western Medical School was opened for training "Native Doctors" in 1822 by the India

Government and against the wishes of the Court of Directors. Similar schools were started in Bombay in 1826 and in Madras in 1827.

It was in the time of Lord William Bentinck that medical education on a higher scale was initiated ; in 1833 he appointed a Committee "to improve the constitution and extend the benefits of the Native Medical Institution." The Committee's recommendations were approved and the foundation of the Medical College sanctioned in 1835 (G. O. No. 28 of 28th January 1835) in a long and interesting Resolution which is quoted at length by Crawford (*Op. Cit.* ii. 435).

The first staff of the college consisted of a Superintendent, Assistant Surgeon M. J. Bramley, with Assistant Surgeon H. H. Goodeve as his assistant, on allowances of Rs. 1,000 and Rs. 600 in addition to the regimental pay and allowances of their rank. Soon after Assistant Surgeon W. B. O'Shaughnessy (afterwards Sir Brooke O'Shaughnessy, the introducer of the electric telegraph into India) was added to the staff to teach *Materia Medica* and Chemistry. After a course of three and a half years the first batch of five students passed out in 1839 ; all were at once appointed as Sub-Assistant Surgeons. One Brahmin student, who withdrew from the first examination but passed in 1841, Babu Badan Chandra Choudhuri, lived till recently at Hughli, where he died, aged 97, in August 1907.

Students from Ceylon regularly attended, till the Colombo Medical School was opened in 1870.

MADRAS.

A Medical School was established at Madras and work began there in 1835, but at first it was restricted to training two classes of Subordinates for the Military Medical Department. The first Superintendent was Surgeon William Mortimer, assisted by Assistant Surgeon George Harding ; a third chair, in Chemistry and *Materia Medica*, was

added in 1846. It was not till 1847 that civil students were admitted and the school put on a level with those at Calcutta and at Bombay. The term "College" was not applied to this school till 1851. Female students were admitted in 1875 and at their head was Mrs. Scharlieb, now on the staff of the London School of Medicine for Women.

BOMBAY.

The Grant Medical College, Bombay, was named after Sir Robert Grant, the Governor of Bombay (1835 to 1838); it was opened in 1845 and in 1860 was affiliated to the Bombay University. The Petit Laboratories were opened in 1871. The College was opened to women students in 1884.

MEDICAL SCHOOLS OUTSIDE THE PRESIDENCY TOWNS.

We can hardly do more than mention the numerous smaller schools which have been opened from time to time in India. Some of these, as at Lahore and at Lucknow, rank in importance with the schools at the three Presidency towns.

Agra Medical School.

This was the first in the (old) Bengal Presidency to be opened outside of Calcutta. It was founded in 1853, its first Principal being Surgeon John Murray.

Lahore Medical School.

This was opened in 1860, the first Principal being Assistant Surgeon J. B. Scriven, who was succeeded by Surgeon Burton-Brown in 1871. It was affiliated to the new Punjab University in 1882.

Nagpur Medical School.

This was opened in 1867, the first Principal being Surgeon S. C. Townend. The school was closed about 30 years ago.

Sealdah, Patna, Dacca and Cuttack Medical Schools.

These schools were opened all within a period of three years. Sealdah in 1873; the Temple Medical School

at Patna in 1874, its first Superintendent being Surgeon-Major David Boyes Smith, afterwards Professor at Netley (1885-89). The Dacca School was opened in 1875 and its first Superintendent was also D. B. Smith. The Cuttack School was opened in 1876 and its first Superintendent was Surgeon W. D. Stewart who held the appointment till his death in 1890.

Indore Medical School.

This school owes its origin to Surgeon-Major Thomas Beaumont and was opened in 1878. In 1910 it moved into other buildings and was called the King Edward Medical School.

Rangoon Medical School.

This was opened in 1907 for the education of Burmese students.

Ludhiana Medical School.

This was opened for Christian women only in 1894 by Dr. Edith Brown. It is intended to train women for zenana medical work.

Dibrugarh Medical School.

This, the only medical school in Assam, was founded by a legacy from Surgeon-Major Berry White, who worked as a Civil Surgeon in Assam for over 24 years. It was opened in 1900, the first Superintendent being Lieutenant-Colonel E. A. W. Hall. Dr. Berry White was attacked (Lieutenant-Colonel Crawford tells us) with hæmoptysis on first arrival in Calcutta and was sent to Dibrugarh as a healthy station. He lived in Assam for 24 years after this, retired in 1882, and did not die till 1896.

Lucknow Medical College.

This is the latest of the Indian Medical Colleges, the foundation was laid by King George V., when Prince of Wales, in November 1905. It was opened in 1912 and a magnificent new hospital is now attached to it, the total cost being over 33 lakhs.

Nellore Medical School.

This was opened in 1876 by Surgeon-Major Aeneas M. Ross to train subordinates for work in the great Madras famine of 1876-8. This was closed in 1897.

Madura Medical School

Was opened at Dindigal in 1874 by two American Missionaries. It was closed in 1887.

Tanjore Medical School.

This was opened in 1883 by the Tanjore District Board and was taken over by Government in 1905.

Hyderabad Medical School.

The first schools in the Deccan was established by Assistant Surgeon Thomas Key and Staff-Surgeon Simon Young in 1835. It was closed in 1846. The present Hyderabad school was opened in 1846 by Assistant Surgeon W. C. Maclean (afterwards Professor at Netley).

Two other shortlived medical schools were established at Travancore in 1835 and at Ajmir, but they did not long survive. Other medical schools (not mentioned by Lieutenant-Colonel Crawford) are those at *Royapuram* which in 1911 had on its rolls 177 pupils; *Vizagapatam Medical School* had 52 pupils in 1911; the *Poona Medical School* has about 136 pupils, of whom a considerable number were military students; the *Ahmedabad Medical School* has about 139 pupils.

RESEARCH LABORATORIES.

The great Bacteriological Laboratory at Bombay commenced work in the year in which plague again invaded India, in 1896, and was at first in charge of Dr. Haffkine. It was at first largely occupied in making plague vaccine for inoculation against plague; but it gradually took over the duties of research and became a general rather than a plague laboratory. In the hands of its present head, Major Glen Liston, C.I.E., I.M.S., it is destined to become the nucleus of a great *School of Tropical*

Medicine for Western India. The *Central Research Laboratory* at Kasauli, the *Pasteur Institutes* at Kasauli and at Coonoor, and the *King Institute of Preventive Medicine* at Guindy, near Madras, are modern developments for the purpose of research and preventive medicine. The King Institute is called after Colonel W. G. King, C.I.E., I.M.S., for many years Sanitary Commissioner of Madras and a pioneer of many sanitary advances in that Presidency.

The foundation-stone of the *Calcutta School of Tropical Medicine* was laid in February 1914. It is, we hope, destined to be the home of a great school of research and teaching in tropical medicine. Other recent important advances destined to have much influence on sanitation and the advance of preventive medicine in India have been the establishment of the *Indian Research Fund*, and the institution of special *training in malarial work* by the Central Malaria Bureau at Amritsar and at Delhi. The holding of frequent *Sanitary Conferences* is also of great importance, not only in putting on record the results of research and inquiry, but also in arousing public interest in the subject, for without the friendly co-operation of the educated communities and of the people little advance can be expected.

Private Medical Schools.

Another recent development which will be watched with interest is the formation of small medical schools in cities like Calcutta or Bombay by independent or non-official medical men. It is a healthy sign to see medical men undertaking this sort of work, but it is obvious that in modern days no medical school can do justice to its students unless it is able to furnish ample clinical material and up-to-date and expensive laboratories. That there is room for at least one such "extra-mural" school, as it might be called, in such a city as Calcutta is admitted by all, and the Government of Bengal has wisely granted a considerable sum to endow one school which has been considered to be the best and most promising of the "unrecognized"

schools which have recently sprung up. All medical men will wish it every success, but it is obvious that in the interests of the public (among whom its Licentiates will practice) and in the interests of the students themselves some sort of supervision and control is needed to make sure that the teaching and the equipment for teaching is of a reasonably high standard.

* It may possibly be found that the best method of ensuring to the public that all medical schools, governmental or private, shall reach such a reasonably high standard, will be to institute a State Examination, open to all schools, with authority to confer a diploma or diplomas of the State Faculty on all students who pass this examination, which should be, to begin with, of two grades, *viz.*, a *Membership* to replace the present L.M.S. and a *Licentiate* to correspond to the qualification now taken by men of the Sub-Assistant Surgeon grade. The Membership of this Medical Faculty would correspond to that of Conjoint Board of the Royal Colleges of the British Isles, whereas the more ambitious or abler men would aspire to the University M.B.*

The Medical Councils now formed under the recent "Medical Acts" would then admit to registration not only all medical graduates of the universities, but also all who had passed this "State Examination" or other such examination which has been or may be established in such cities as Calcutta, Bombay or Madras. Such an examination would be a guarantee to the public and would set up a standard for *all* medical schools to live up to or surpass.

OTHER SCIENCES IN INDIA.

So far we have written mainly of the introduction and spread of Western medical practice, hospitals and education, but while European medical men have thus been instrumental in introducing Western medical science

* The orders of the Government of Bengal for founding this State Faculty have recently been issued (July 1914).

and practice into India many of them have also been the means of introducing and advancing other sciences into that country. *

In a paper published in the *Calcutta Review* (January 1914) Sir Ashutosh Mukherjee, late Vice-Chancellor of Calcutta University, referred to a number of medical officers of the Service who took a great part in establishing the great Indian Museum, *e.g.*, Dr. Nathaniel Wallich, Dr. Tytler, Dr. J. M. Pearson, Dr. McClelland, Dr. Anderson and the great name of Dr. Horace Hayman Wilson. We can only mention a few of the medical men to whom India is indebted for advance in many sciences.

BOOKS ON TROPICAL DISEASES.

On the more purely professional subject of diseases of the tropics the following medical officers published books giving their experiences:—James Lind (B. 1771),* author of a work on *Tropical Diseases*, which ran through six editions; J. P. Wade (B. 1783) wrote on *Fever and Dysentery*; Sir Whitlaw Ainslie (M. 1788) wrote the *Materia Medica of Hindustan*; Sir James Annesley (M. 1799) wrote *Sketches of Diseases of India*; Sir Ranald Martin (B. 1817) wrote on the *Influence of Tropical Climates on European Constitutions*; William Twining (B. 1825) on *Diseases in Bengal and on Cholera*; Allan Webb (B. 1835) wrote *Pathologia Indica*; C. Morehead (Bo. 1829) wrote *Researches on Diseases in India*; H. H. Goodeve (B. 1831) wrote a book on *Diseases of Children in India*, which is still extant and reached its 8th edition in 1912 (edited by Lieutenant-Colonel C. R. M. Green, F.R.C.S., I.M.S.), and Sir William Moore (Bo. 1852) wrote his well-known and popular *Family Medicine for India*; W. C. Maclean's (M. 1836) *Diseases of Tropical Countries* was the standard work on the subject up till the nineties. Other books may be mentioned, C. Macnamara's (B. 1854) *History of Asiatic*

* The date is that of Entrance to the I.M.S. B.—Bengal, M.—Madras and Bo.—Bombay Medical Service. (For further details, see Crawford's *History passim* and *Indian Medical Gazette*, Vol. XLVII., June 1912.)

Cholera; E. C. Hare's (B. 1839) *Fever and Dysentery and on use of Quinine* and Norman Chever's *Commentary on the Diseases of India*. Sir Joseph Fayrer's numerous books may also be referred to; and Kenneth Macleod's *Operative Surgery*, Keegan and P. J. Freyer's writings on *Litholopaxy*, to mention only a few out of a long list. In the present day the tradition is well kept up with works by Sir Leonard Rogers, E. A. Newman, F. P. Maynard, Henry Smith, R. H. Elliot, etc., etc.

THE NATURAL SCIENCES, ETC.

In the *Natural Sciences* much advance was made by such medical officers as Dr. J. G. Koenig (M. 1778); William Roxburgh (M. 1776); Nathaniel Wallich (B. 1814); F. Buchanan-Hamilton; Thomas Anderson; J. E. T. Aitchison (B. 1818); Sir George King; Sir David Prain, F.R.S.; all of whom are well-known names in Botanical Science.

In *Zoology* we may mention the names of Dr. Patrick Russell (M. 1785), who wrote on snakes and fishes and also on plague; Clarke Abel (B. 1823) who wrote on his travels in China; T. C. Jerdon (M. 1835) the great authority on the *Birds of India*; G. C. Wallich (B. 1838); Francis Day (M. 1825) who made a study of *Indian Fishes*; A. W. Alcock, F.R.S. (B. 1885), author of *A Naturalist in Indian Seas* and for long Superintendent of the Indian Museum.

In *Geology* we find the names of Hugh Falconer (B. 1830); John McClelland (B. 1830) and H. J. Carter, F.R.S. (Bo. 1842).

In *Economic Science*, or the practical application of science to industry, we find the names of Dr. James Anderson (M. 1762) who wrote on the Minerals of Coromandel in 1796; David Turnbull (B. 1791) who discovered the use of the Lac dye in 1806; John Forbes Royle (B. 1819) who wrote much on Botany, the tea plant, the fibrous plants of India, and on cotton; (on leaving

India he became Professor of Materia Medica at King's College, London); Sir George Birdwood (B. 1854), a veteran still to the fore in London; E. G. Balfour (M. 1836), founded the Madras Museum and wrote much on the trees and timbers of India; E. G. Waring (M. 1849) wrote on *Bazar Medicines*; and John Shortt (M. 1854) wrote on coffee, cocoanut and Indian cattle. In this connection we may refer to the large share which medical officers had in establishing the *Forest Department* in India; the *Electric Telegraph* was introduced into India by Sir William Brooke O'Shaughnessy (B. 1833) when Professor of Chemistry at the Calcutta Medical College; the Assay Department up till very recently was entirely in the hands of Medical Officers and also the Opium Assay work.

PHILOLOGY AND ETHNOLOGY.

We need here hardly do more than mention the names of medical officers whose works are landmarks in *Philology and Ethnology* in India. Holwell was one of the first to study this subject in India. Other names are Francis Balfour (B. 1769), Henry Harris (M. 1783), Dr. J. B. Gilchrist (B. 1783), a voluminous writer on Philology, who taught in the College of Fort William, in the house at the corner of Dalhousie Square and Council House Street, Calcutta, recently demolished. John Leyden (M. 1803), John Crawford (B. 1803) who travelled in Siam and Burma and wrote a Dictionary of the Malay Language. Horace Hayman Wilson's name (B. 1808) is too well known in scientific circles in India to need more than a mention, he was for many years Assay Master in Calcutta, and on his retirement became Boden Professor of Sanscrit at Oxford. The name of Colonel L. A. Waddell, C.B., C.I.E., must not be omitted.

Many more names could be mentioned of medical men who did much to promote the sciences in India. It will have struck the present day reader as curious

that medical men have been employed in such various capacities; but we must remember that these appointments were made before the days of specialism and at that time there existed in India *no other class of men with a scientific training*. The medical officers of the Indian Medical Service therefore discharged the functions not only of doctors in Civil and Military employ but they were the only men available in India for appointments as botanists, chemists, biologists, etc., all of which have now become specialist professions. With the advance of knowledge the motto *cuique in sua arte credendum* has been adopted and it is no longer possible for medical men to be found, in sufficient numbers, who will give up their own profession for the pursuit of special scientific subjects, not closely connected with their own art, which indeed is every year becoming more and more broken up into its own specialisms.

RECENT DEVELOPMENTS.

Before we close this rapid review of the introduction and advance of Western Science in India we must not omit to mention the important work done in the introduction of *medical women* to India. This useful work was started or rather first organized by Lady Dufferin, but in recent years has seen many developments. Much good medical work too has been done by ladies of the various Missionary Societies and indeed we should not have omitted the medical and surgical work done by medical missionaries all over India. A State Medical Service of Women Doctors has recently been instituted.

Nursing too has been a subject long neglected in India, but much has now been done to provide nurses for the sick at home and in hospital by the philanthropic endeavours of such ladies as Lady Curzon, Lady Minto and Lady Carmichael. The need for efficient nursing has long been felt especially in the numerous large and well equipped hospitals in the Mofussil, but there are

many difficulties. Suitable Indian women are not easily obtained, and there are obvious objections to the employment of European women as nurses, unless under special conditions.

Sectarianism and quackery still flourish apace in modern life, says Garrison (in his recent *History of Medicine*). Even in advanced countries like America we hear of "osteopaths," "Christian Scientists," "eclectics," "botanic medical men," etc., etc. In India a large portion of the public and even many of the educated classes still put their faith in their *baidis* and *hakeems*; but the enormous increase in the number of hospitals and dispensaries in India and the steady rise in the attendance at them is the best proof that Western Science has taken root firmly in India and will increase.

In conclusion we may be permitted to follow the above quoted American Historian of Medicine when (in a special article* on English Surgeons in India) he writes as follows :—

"The achievement of the Indian Medical Service not merely in Medicine and Science but in the actual administration of such a vast area as the Indian Peninsula is well worthy of the lines in Lecky's poem :—

These are those who governed men
By the sword or voice or pen—
Who through good or evil fate
Shaped the fortunes of the State,
Framed its creeds or laws, or bore
Its flag to many an unknown shore,
Fought many a fight on sea and land
Or moulded realms by wise command,
Where beneath the Indian Sky
For some strong guide the nations cry,
In lands where deeds, not words, have sway,
Where men can rule and men obey."

W. J. BUCHANAN.



* Garrison, *Edinburgh Medical Journal*, May 1914, p: 432.

CALCUTTA UNIVERSITY PROBLEMS. IN THE LIGHT OF THE FINAL REPORT ON LONDON UNIVERSITY.

BY PRINCIPAL H. R. JAMES.

THERE is sufficient likeness between London and Calcutta as University centres to make a study of the final report of the Royal Commission on the University of London eminently interesting; and enough difference to make the enterprise of attempting practical applications a hazardous one. As regards organization and control, the histories of the two Universities have latterly been so unlike and the circumstances to-day are so widely different that the bare attempt at application seems to be excluded. To begin with, the nomenclature proposed for London is different. The large body which is to have the ultimate control (including the power of the purse) is called the *Court*. The *Senate* is to be a smaller body with the executive functions of the Calcutta Syndicate. And there is yet a third body called the *Academic Council* which consists entirely of teachers in the University and has purely consultative functions. Conclusions from this part of the report must be applied, if applied at all, with very great caution. This is equally the case with all those parts of the report which consist of the recommendations actually made for the London University.

But there is one part of the report which has a quite extraordinary practical interest and relevance for all concerned with the present and the future of Indian Universities; and not least, of Calcutta University. This is Part II which is headed "The Essentials of a University in a Great Centre of Population." A glance through the analysis on pages viii and ix soon brings attentive readers

face to face with arresting statements. For instance, this : "A wide syllabus of prescribed studies with an external examination as the test of the information acquired, inevitably tends to uneducational methods of works." (Page 34.) Has not this an even startling relevance to Calcutta University? At all events, wide syllabuses of prescribed studies with external examinations are precisely what we have.

A little further on we read: "A sound general education giving the power of accurate expression and orderly thought, must be the basis of university work. These intellectual qualifications, together with the formation of moral habits, must be accompanied by a wide range of study at school. This last requirement it was the intention of the original Matriculation Examination to ensure. The growth of specialization has tended to restrict the range of the Matriculation examination, and has altered its purposes so much, that the securing of a sound general education has been lost sight of. This appears to render the Matriculation Examination unsuitable for school purposes, or as a test of fitness for University study, a conclusion reached by the Scottish University Commissioners many years ago." (Page 37.) The plain import of all this is, that if you have a sound general education, you do not want any Matriculation Examination at all; and the Commissioners have no compunction whatever in pronouncing the London Matriculation Examination a failure. But we here have such a touching faith in our Matriculation Examination and of the University's handling of it! The Matriculation Examination is not, evidently, a sacred thing to the minds of the Royal Commissioners in London. Not only do the Commission condemn the London Matriculation Examination but they propose to abolish it. There is, however, a qualification. "The University must retain some form of Matriculation examination designed for students of the age of 17 who are unable to enter through the normal avenue of the secondary school." It appears also

that the minimum age for Matriculation is to be 17, while it is recommended as desirable that school education should be continued up to the age of 18. In contrast with this, in Calcutta the Joint Faculties of Arts and Science, meeting in conference on the 22nd August last, resolved that the minimum age for Matriculation should be *reduced* from 16 to 15.

These striking points of similarity and contrast would seem to hold out some promise, that the report will repay careful study. It should further be premised, what doubtless is known already to most readers, that the Royal Commission of Enquiry "into the working of the present organization of the University of London" was appointed in May 1910, and that among the Commissioners are some of the ablest and most experienced minds of the present day; Lord Haldane, Lord Milner, Sir Robert Morant and Mrs. Louise Creighton may be named in special.

It is proposed accordingly to examine Part II. more in detail. The ultimate end the Commissioners have in view is "constructive proposals," and in Part I. they have considered the existing organization of the University of London and its main defects. In order to make their proposals and recommendations effectual, they proceed to lay down in a general form what things are essential for a university situated as London University is situated. "We must enquire," they say, "what are the ends to be kept in view; what are the essential things which the University of London must do if it is to be the highest kind of educational institution; and, further, what are the conditions necessary for the attainment of these ends." (Section 61.) They go on in the next section: "Much that is defective in the present organization of the University of London, can be traced ultimately to confusion of thought about what things are essential to university education and what things are non-essential. For example, whatever importance may be attached to examinations, an examining board can never constitute

a university ; and again, technical instruction and advanced courses of study may be multiplied indefinitely without providing university education." Of course, any educational institution may be called a university ; but, as Dr. Rashdall says, "the name has got to be associated with education of the highest type : *to degrade the name of a university is therefore to degrade our highest educational ideal.*"* And a little further on : "The history of the rapid growth of university institutions in this country during the last thirty years would no doubt explain much of the confusion of thought to which we have referred, but a large part of it is due to the history of the University of London itself, to the undoubted success which it achieved as an examining body, and to the beneficial effects of the encouragement it gave to systematic study at a time when there was no properly organized system of secondary schools, and but a very imperfect provision of institutions capable of giving a higher education at a small cost." (Section 62.) Then at the end of Section 63 we approach the statement of what the essentials of education, as distinctively university education, actually are, and it is premised : "The differentia of university education do not consist in the nature of the particular subjects studied, or in their difficulty or abstruseness, but rather *in the nature and aim of the student's work*, and in the conditions under which it is done." Section 64 continues : "In the first place, it is essential that the regular students of the university should be able to work in intimate and constant association with their fellow students, not only of the same but of different Faculties, and also in close contact with their teachers. The University should be organized on this basis, and should regard it as the ordinary and normal state of things. *This is impossible, however, when any considerable proportion of the students are not fitted by their previous training to receive a university education*, and therefore do not and

*I have here, and in one or two other places, allowed myself the use of italics which are not used in the report itself.

cannot take their place in the common life of the university as a community of teachers and students, but, as far as their intellectual education is concerned, continue in a state of pupilage, and receive instruction of much the same kind as at a school, though under conditions of greater individual freedom." And the section closes: "From the time the undergraduate enters the University, he should find himself a member of a community in which he has his part to play. The teaching and learning should be combined through the active and personal co-operation of teachers and students."

Section 65 begins by stating that "the main business of a university is the training of its undergraduates;" and this is an important pronouncement for us who have, for many years, been contending for this principle in face of the constant temptation to turn aside after the alluring doctrine that the main business of college professors is the pursuit of original research.

Section 66 states the second essential to be that "the work done in a university by teachers and students should differ in its nature and aim both from the work of a secondary school and that of a technical or a purely professional school." "*In a university the aim is different, and the whole organization ought to be adapted to the attainment of the end in view. Knowledge is, of course, the foundation and medium of all intellectual education, but in a university knowledge should be pursued not merely for the sake of the information to be acquired, but for its own extension and always with reference to the attainment of truth. This alters the whole attitude of the mind.*" Even if students enter a university (as most do) from utilitarian motives "they should find themselves in a community of workers, devoted to the pursuit of knowledge for its own sake, and tenacious of this ideal against all external pressure of material and social advantages."

Then comes a description of university teaching taken from a report of the Inspectors of the Board of Education

in 1910, every line of which is of value and which cannot be too closely or too frequently studied by those responsible for the aims of university education here. "We may assume," say the authors of this report, "that university teaching is teaching suited to adults ; that it is scientific, detached and impartial in character; that it aims not so much at filling the mind of the student with facts or theories, as at calling forth his own individuality, and stimulating him to mental effort; that it accustoms him to the critical study of the leading authorities, with, perhaps, occasional references, to first-hand sources of information, and that it implants in his mind a standard of thoroughness, and gives him a sense of the difficulty as well as of the value of truth. The student, so trained, learns to distinguish between what may fairly be called matter of fact and what is certainly mere matter of opinion, between the white light and the coloured. He becomes accustomed to distinguish issues, and to look at separate questions each on its own merits and without an eye to their bearing on some cherished theory. He learns to state fairly, and even sympathetically, the position of those to whose practical conclusions he is most stoutly opposed. He becomes able to examine a suggested idea, and see what comes of it, before accepting it or rejecting it. Finally, without necessarily becoming an original student, he gains an insight into the conditions under which original research is carried on. He is able to weigh evidence, to follow and criticize argument, and put his own value on authorities."

Section 68 gives the third essential, namely, "that the higher work of the University should be closely associated with the undergraduate work." This, if not necessarily decisive on the problem which has recently arisen in India in framing new universities, and in organizing M.A. and M.Sc. studies in Calcutta University, is nevertheless a deliberate and weighty judgment which required to be, *and has not yet been*, taken into account. "On the one hand," says the report, "it is proposed that the bulk of the

undergraduates should be distributed over a large number of centres, most of which would be limited to instruction in 'one or two Faculties only, while the teaching of the University Professors in the more central colleges should be organized with primary reference to the needs of the post-graduate or advanced student and should provide for undergraduates, if at all, only as a secondary and entirely subordinate consideration." This appears to be very much what has not only been proposed, but carried out in respect of the University M.A. classes ; and *this the London Commission definitely condemn*. "We agree," they say, "with the view expressed in the Report of the Professorial Board of University College that 'any hard and fast line between undergraduate and post-graduate work must be artificial, must be to the disadvantage of the undergraduate, and must tend to diminish the supply of students who undertake post-graduate and research work.'"

In connection with this subject, it is laid down as desirable that professors, that is, the most highly qualified of the teachers, should take part in the teaching of the undergraduates, that is, of the lower classes. The Commissioners say "but it is in the best interests of the University that the most distinguished of its professors should take part in the teaching of the undergraduates from the beginning of their university career. It is only by coming into contact with the junior students that a teacher can direct their minds to his own conception of his subject, and train them in his own methods, and hence obtain the double advantage of selecting the best men for research and getting the best work out of them." This again is balm for any who have resisted the common tendency in Indian colleges to associate the senior professor exclusively with the higher work and the junior professor with the lower. "Again," the Commissioners write, "it is the personal influence of the man doing original work in his subject which inspires belief in it, awakens enthusiasm, gains disciples. His personality is the selective power, by which

those who are fittest for his special work are voluntarily enlisted in its service, and his individual influence is reproduced and extended by the spirit which actuates his staff. Neither is it the few alone who gain; all honest students gain inestimably from association with teachers who show them something of the working of the thought of independent and original minds." The true purpose of lectures is pointed out. "Lectures have not lost their use, and books can never fully take the place of the living spoken word. Still less, can they take the place of the more intimate teaching in laboratory and seminary, which ought not to be beyond the range of the ordinary course of a university education, and in which the student learns, not only conclusions and the reasons supporting them, all of which he might get from books, but the actual process of developing thought, the work of a highly trained and original mind."

Section 70 takes the other side of the association. "If it is thus to be desired that the highest university teachers should take their part in undergraduate work, and that their spirit should dominate it all, it follows for the same reason that they should not be deprived of the best of their students when they reach the state of post-graduate work. This work should not be separated from the rest of the work of the University, and conducted by different teachers in separate institutions." Nor is this all. For, Section 71 adds: "It is also a great disadvantage to the undergraduate students of the University, that post-graduate students should be removed to separate institutions. They ought to be in constant contact with those who are doing more advanced work than themselves, and who are not too far beyond them, but stimulate and encourage them by the familiar presence of an attainable ideal."

Important things are said about research in Section 72: "Research is often spoken of as if all of it was the highest kind of work, and it is often assumed that a student's education has reached its goal when he is said to be doing original research, and that if he attains to this,

it does not matter what his previous training has been. But, in fact, there are all degrees of value in research, and much that is dignified by the name, however laborious and praiseworthy it may be, is directed to narrow issues and problems of quite secondary importance because the student lacks a broad and liberal education and a wider point of view." And in the next Section 73, it is written: "To set up specialist research institutes at this stage within the University, would be an attempt to build the steeple before the church is roofed."

There is an interesting pronouncement about Technology in Section 76: "There is nothing in the functions of a university, as we have described them, which ought to exclude technological instruction; but it must not be of a narrow utilitarian kind."

It can hardly be questioned that all this is highly interesting from the standpoint of the Calcutta University and even pregnant with instruction. There is a good deal more concerning other sides of university organization, and before going on it might be well to pause and see if the principles so far laid down really have any relevance to Calcutta.

To begin with, it is difficult to see how any reservation can be made which could except Calcutta from the scope of principles which it is claimed, differentiate university education as such. Either Calcutta University claims to count among the universities of the civilized world or it does not. Manifestly it does. He would be a bold man who would stand up in the Senate of Calcutta University and say that Calcutta University definitely aims at being a university on a lower plane (according to the test of the principles laid down, in that case not a university at all) and is content to remain there in perpetuity. And if that alternative be excluded, then manifestly the principles apply; and we have to ask (1) Is Calcutta University organized on the basis that the regular students are "able to work in intimate and constant association with their fellow students, not only of the same, but of different

faculties, and also in close contact with their teachers?" And here surely we may claim that, whatever is to be said of the achievement, this quite clearly has been the *aim*—a common university life of interrelated studies and many-sided activities—*since the Reforms of 1906*.

When we take the second test, *does the work done differ in its nature and aim from the work of a secondary school*, we are at once in the greatest difficulties; for there are several classes of persons who with insistent iteration tell us that the work of the intermediate classes is openly and avowedly school work and not university work. This is said by critics who habitually disparage and pour scorn on the work of Indian Universities, and it is said with equal freedom by those who are for relaxing the rigidity of rules, for instance, by those who the other day were objecting to an "arbitrary" minimum age limit. "*In a university the aim is different and the whole organization ought to be adapted to the attainment of the end in view.*" Confessedly, by that touchstone we fall short, if it is to be applied. But it is difficult to see how a refusal to apply it can be upheld along with any remnant of self-respect. And if it is applied, what is the moral? That we must modestly accept the lower status as unfortunate but unavoidable? Or is it rather that we should strain every sinew and never slacken or rest content, until the whole organization of Calcutta University, and, if necessary, of all Indian Universities, is so moulded and altered as to make the aims of a true university possible of realization.

The third principle finds us in better case. "It is essential that the higher work of the University should be closely associated with the undergraduate work." *It has been in the colleges and still is.* But in what directions are we moving? A questioning of the bearing of the London report is even extraordinarily opportune. Can it be said that in advocating the centralization of the more advanced teaching, that is the M.A., M.Sc. and Honours teaching, the Dacca University Committee was on the wrong path?

It is of course to be recognized that the cases are not, and cannot be made, in all respects parallel. The London Committee were thinking of separate research institutions, not of the relation of the ordinary degree teaching to the University. They might not have repudiated the idea of some centralized teaching for the students of King's and University Colleges, and there is of course the centralized lecture system of Oxford and Cambridge. Still, taking the principle broadly, it might seem that the abolition of teaching above the very lowest from the colleges as such was in the long run dead against the principle. It might certainly appear that the movement to organize M.A. teaching separately in university classes, was, at best, to be viewed doubtfully, and accepted with caution, only after careful scrutiny. A separate science college supported by the University seems to require the same caution. It may be right, but it behoves us by careful consideration of principles and tendencies to make sure that it is.

One thing it is surely plain we must not do. We must resist any temptation there may be to argue that these ideas and principles are all very fine and beautiful, given the conditions which prevail in European countries. "Things are quite different in India, we are practical men ; and as practical men, we are at liberty to solve the special problems of Indian Universities in the way which consorts best with Indian conditions." This way of arguing is plausible enough. It is even right to insist that the problems of education in India must be solved in the way which best suits the conditions in India, and to refuse to be tied strictly to any form or kind of European model. But there is danger of a fatal fallacy here. This does not mean that we can afford to disregard experience in other countries and neglect the principles rationally based on this experience. We must admit the possibility of educational *principles*, and when these are founded upon a broad enough basis of experience, we must conform with them. More especially must we make this concession when the

typé of education in question is professedly moulded after European models: To refuse to admit any principles whatever is to be misologists, a kind of people held up to reprobation by Plato. If there are any generalizations possible in the sphere of education at all, they must with due safeguards apply in India. This is all that is required. Let the whole controversy be determined by that simple admission.

And if this is once admitted, it follows that the publication of the final report of the Royal Commission is very opportune for us. Here is just such a statement of the fundamental conditions of university education, as we stand in need of, the like of which has not been formulated since Newman wrote the discourses now collected under the title *The Idea of a University*. We may take the report and study it closely with the assurance that it must express truths which it is important for us to recognize and which must determine practically our attitude of mind towards actual problems in Calcutta.

The crucial enquiry about every fresh proposal which arises, should be, "what is the tendency?" Granted a large difference of conditions in India and Europe, in what direction is this proposal tending? In the direction of the higher ideal to which we are bound to aspire? Or in the direction of decline even from some lower ideal, to which possibly the actual material conditions have up to the present confined us. If this criterion is applied with sincerity and courage, it will afford sufficient reasonable guidance in respect of most of the controversies that have agitated academic circles in the last three or four years. Surely every sane and reasonable champion of Indian Universities must desire to be guided by it.

There are other judgments expressed in Part II of the report which it is well worth while to weigh; but this article has already run to the limits of reasonable length, and if the other matters are to receive similar considerations, it must be later.

THEISM AND PANTHEISM IN THE BHAGAVADGITA.

BY W. S. URQUHART.

WHILE the Vedas and the Upanishads are valued as a sacred heritage from the past they are not studied in proportion to their felt value. But the *Gita* is both valued and read, and, for practical importance, holds the first place amongst the works of Sanskrit literature. Throughout the centuries it has been the predominating influence upon Indian educated thought and to-day it is still a living book, of much more than historical interest and read by countless numbers in every part of India. As Professor Garbe says "it has become the sum of all wisdom to the cultured Indian." (*Monist*, October 1913.) The study of the *Gita* should, therefore, throw much light upon the transition from ancient to modern tendencies in Indian thought.

The *Gita* is a sub-section of a section of the *Mahabharata*, the section being the *Bhishma Parvan* and the sub-section (of 18 chapters out of 30) being known as the *Bhagavadgita Parvan*. The setting of the poem is so well known that we need hardly refer to it. It is the eve of the battle of Kurukshetra, the chief episode in the war between the Kauravas and the Pandavas. Arjuna, one of the Pandava heroes, is in his war chariot and has as his charioteer the god Krishna, who has assumed human form. As the battle is about to commence, Arjuna is seized with misgivings. After all, it is an inter-family feud and how can he slay his kinsmen? Krishna undertakes to adjust the thoughts of the troubled warrior and, in so doing, sets forth the system of religion and philosophy which we have in this great poem.

The setting of the poem is not, of course, historical. Apart from the intrinsic improbability of such a discourse having been delivered on a battlefield on the exciting eve of a great conflict, there are many other objections to historicity. Krishna, as represented in the *Gita*, is the result of a long process of development in the course of which the ally of the Pandavas—the warrior and religious teacher—has received deification, comes to be regarded as an incarnation of Vishnu, and is finally identified with the Brahman of the Vedanta Philosophy. Now the battle of Kurukshetra is supposed to have been fought about the time of the compilation of the Vedas. If then, such doctrines as those set forth in the *Gita* had been promulgated on the field of Kurukshetra, they could hardly fail to have influenced succeeding literature. But as a matter of fact, we have no reference in early times to Krishna as the incarnation of Brahman. If he is referred to at all in later Vedic literature or in the Upanishads or the Sutas it is rather as a man or hero or demigod and never as the Supreme Being.

Much controversy has raged round the question of the date of the *Gita*. No competent authorities now attempt to regard it as historically assignable to the period of the battle of Kurukshetra, but even if it is brought down to a later date, there is still room for much difference of opinion as to *how much later* this date ought to be. Justice Telang may be taken as a representative of those who press for an early date. He concludes both from external and internal evidence, that the date must be earlier than the Third Century B.C., but does not venture to a more definite decision. The internal evidence which he adduces is the more important of the two kinds of evidence. He urges that the *Gita* belongs to an age prior to that of system building, that its thought is free and unfettered by any fear of inconsistencies. Inconsistencies are numerous and varied. At one time knowledge is put higher than devotion, and at another time the order is

reversed. (Cf. VI. 46 and VII. 16.) At one point Krishna declares (IX. 29) "there is none whom I hate, none whom I love" and at another point (XII. 19) he says that "one who holds in equal account blame and praise, silent, content with whatsoever befall, is a man *dear to me*." Mr. Telang argues that these and many other similar contradictions are signs of an age of innocence, when men were unaware of inconsistencies and made no attempt to get rid of them and replace them by systematic thought. He finds much similarity between the point of view of the *Gita* and the earlier Upanishads. They take up much the same attitude towards works of a ritual character and seem to regard the Vedas as containing only instructions upon ritual matters. The expression of this latter opinion in the *Gita* would seem to imply that at the time it was written the Upanishads had not yet risen into prominence as an integral part of the sacred literature. There is indeed one mention of the word "Vedanta" in the *Gita* (XV. 15), but Mr. Telang takes this to refer to the *Aranyakas* which are earlier than the doctrinal treatises now known as the Upanishads. Another of Mr. Telang's arguments has reference to the attitude to caste taken up in the *Gita*. Caste is based upon the possession of certain religious and moral qualities rather than upon descent (Cf. IV. 13). In a later passage (XVII. 41-45) emphasis is laid upon the performance of certain duties—spiritual duties by the Brahmans, duties of valour by the Kshatriyas, agricultural duties by the Vaisyas and duties of service by the Sudras. Mr. Telang therefore argues that the *Gita* belongs to an earlier age than, say, the *Laws of Manu*, in which the institution of caste has become solidified and hereditary, largely because of the increasing influence of the Brahmans and their monopoly of the right to perform the ritual inculcated in the Brahmanical writings. Closely connected with this point is Mr. Telang's theory of the relations of the *Gita* and Buddhism respectively to Brahmanism. If it be the case, as Mr. Telang argues, that the *Gita* represents

a more fluid theory of caste than that indicated in later works like the *Laws of Manu*, we may also urge that it represents the earliest protest against the growing power of the Brahmans. Buddhism is also an attack on current Hinduism, only far more thoroughgoing. The question then is, which attack is the earlier? It might be possible to look upon the *Gita* as the work of one who, having taken fright at the revolutionary tendencies of Buddhism, was desirous of upholding the old system by introducing certain moderate reforms within it. Mr. Telang rejects this hypothesis on the ground that the *Gita* with all its moderation is yet far too negative to be regarded as a defence. The line of development is more naturally described if we take the *Gita* as the first tentative effort at a reform which was afterwards carried to far greater length in the teaching of Buddha and his disciples. The development might be compared to that which took place in the Brahmoism of the 19th century—from the moderate reformation associated with the name of Raja Ram Mohan Roy to the more thoroughgoing revolution of religious thought represented in the teaching of Keshub Chunder Sen.

It is obvious, however, that Mr. Telang's argument for the early date of the *Gita* does not represent the only possible point of view. The inconsistencies in the *Gita* may be otherwise interpreted. They may show an eclectic spirit which has not been altogether successful in its eclecticism. In other words they may belong, not to an age of philosophic innocence unconscious of the contradictions and prior to the formation of philosophical systems, but to a later age when the various systems have long been current and their contradictions have become only too glaring. It would be fitting that an attempt should be made to soften those contradictions by bringing them together into the same philosophic-religious work, even if this should not contain a compact and closely reasoned system. Again, the attitude to caste taken up in the

Gita may represent a *revolt* against an oppressive caste system rather than a preliminary development towards such a system. Farther we are by no means convinced by Mr. Telang's argument as to the priority of the *Gita* to the reforms of Buddha. It seems at least as probable—if not more probable—that the intense conflict between Brahmanism and Buddhism may have made men uneasy and so have produced a spirit of eclecticism, anxious to find some such *via media* as is offered in the *Gita*.

Though, however, we may adopt a somewhat critical attitude towards Mr. Telang's argument for an early date we must not go to the opposite extreme and demand a date so late as to allow of considerable borrowing from the Christian scriptures. There are undoubtedly many similarities, especially between the *Gita* and S. John's Gospel, but there is no sufficient evidence of *direct* borrowing and therefore no sufficient ground for an argument from these similarities. The judgment of scholars has moved away considerably from the position taken up by Dr. F. Lorinsen in 1869, and the tendency now is to regard the theistic teaching of the *Gita* as a natural development which took place within the limits of Indian thought itself, though perhaps roughly contemporaneous with the earliest beginnings of Christian doctrine. The most satisfying view as to the development of thought indicated in the *Gita* is that associated with the name of Professor Garbe. The form in which we now possess the *Gita* is not its original form but is the result of a synthesis. In its original form the *Gita* might be described as the text-book of the Bhagavata sect, who in the exposition of their doctrines had already taken the help of the Sankhya and Yoga philosophies. The worship of the Bhagavatas had originally centred in Krishna, who came to be regarded as an incarnation of Vishnu and was in this respect frequently known by the name of Vasudeva. It is suggested by Dr. Barnett that Vasudeva was originally a tribal god who was identified

with Vishnu perhaps earlier than Krishna and later shared with the latter a common inheritance of legends.*

The core of the poem is therefore theistic but an adjustment was made between this theism and the current philosophies, especially the Sankhya and the Yoga. Of these two the Yoga, because of its faith in a personal God and its more definitely ethical tendencies, had the greater attraction for the author of the *Gita*. But further adjustment had to be made between the theistic elements and the Vedantic pantheism in order to provide a point of contact between the Bhagavatas and the Brahmans when the latter had succeeded in attracting the former to their faith. The result is that besides the personal God of the original *Gita*, we have an impersonal non-qualitative God—Brahman in the absolute sense; and the world which, according to the original form of the doctrine, was a real emanation from the Supreme, becomes *Maya*, an illusion, trembling always on the verge of reabsorption. The two conceptions stand side by side and were formulated in the existing work in the course of the first two centuries A.D. There is little attempt to bring the two aspects into organic unity with one another, but yet they exercise considerable mutual influence. It is with the influence of the Vedantic pantheism upon the theistic elements in the *Gita*, that we wish to deal in this article, and our suggestion is that the influence of the theistic teaching was greatly hampered by the presence of the philosophical elements drawn from Vedantic, Sankhyan and Yoga sources. But, first of all, let us attempt to set forth the theistic elements in this composite whole. We have already seen that the belief which is presented in the *Gita* is the culmination of a long development from primitive trust in a warrior leader to faith in a personal Supreme Spirit. Krishna the warrior and prophet becomes identified with Vishnu and Vasudeva, and when we meet with him in the *Gita* is just

* Cf. Introd. to *Gita*, page 51.

on the point of being identified with the *All-God* of the Vedanta philosophy. He is not, however, as yet conceived in the abstract manner of the Vedanta. He still retains qualities by which we may describe him clearly enough to constitute him a definite object of worship. He is supreme over the world and from him the world of matter proceeds. Matter has not independent existence as in the Sankhya philosophy, neither has it merely relative and illusory existence as in the Vedanta. God, or Krishna-Vasudeva, is the creative source of a real world of spirits and of matter. Even if we cannot say that matter is part of the being of God we can at least say that He plants within it the germ of development and works in it and through it. In XIV. 3 there is an attempt to hold together the two conceptions of a material source and a vivifying principle. Krishna is represented as the originator of all that is effective in matter, as, in other words, responsible for the bringing of matter from the position of a mere negative into the position of a real being. He sets the germ in the "great Brahman," *i.e.*, in the primal, indeterminate matter and "thence spring all born beings." God also sustains and controls the universe which He has made, being both transcendent and immanent in regards to it. He is the essence of all the phenomena of the actual world—the light of the sun and the moon and the fire and the sound of the ether vibrations, "the understanding of them that understand, the splendour of the splendid" (VI. 10), the first of gods and men, the chief of rishis, saints and priests. (X. 20-24.) He is also to be identified with death which "ravishes all" (X. 34), which phrase indicates the cyclic character of the Krishnaic creation. At the end of the age all things return to him (VIII. 18-19), yet not for final dissolution, but to be reproduced again. In the same verse as has been just quoted from Krishna is described as "the Source of all that is to be."

We should notice for future reference the pantheistic tendency which is beginning to manifest itself in this

detailed identification. This appears strongly in XV. 12-15, where the relation of God to natural phenomena is represented as almost wholly immanent. "The radiance in the sun, in the moon and in fire, that illumines the whole universe, know them to be mine. Entering the earth, I support with might born beings ; as the Soma, essential sap, I foster all herbs. I am seated in the heart of all ; from Me are knowledge, memory and their negation." We should notice also a tendency towards one of the extremes to which pantheism is always liable, *viz.*, the extreme of naturalism. In the actual world-process, matter is regarded as doing everything in virtue of its own powers. "Works are done entirely by the modes of Nature" (III. 27) and, again, "He who sees that works are wrought in every case by Nature, sees indeed." (XIII. 29.) We shall return to this detachment of Nature from God when we come to consider the Sankhya influence. In the meantime we are more concerned with the subjective counterpart of the detachment in the Divine mind. The supreme power *acts*, indeed, but in a somewhat cold and indifferent manner. He has no *desire* to manifest Himself in activity. Works affect him not, or, in the somewhat stronger language of the *Gita* itself, "works defile him not." (IV. 4.) He thus remains outside the chain of causes and effects and abides in passionless calm.

We obtain however a more definitely theistic impression on considering the relation of God to His worshippers and to the world of men generally. Here we approach the conception of Divine grace and the answering concept of *Bhakti*, or warm confiding devotion to God on the part of man. In reference to human society God appears as a Redeemer. "Whenever there is a decay of the law and an ascendancy of lawlessness, I create myself. For protection of the good and the destruction of evil-doers, and for the establishment of the law I am born age after age." (IV. 8.) The repeated incarnation of the supreme in the person of Krishna and otherwise is explained by a

strongly ethical purpose of grace. Towards individuals also Krishna is compassionate. At the request of Arjuna he manifests his form in all its splendour and majesty, and the relations between worshipper and worshipped are such that Arjuna can pray that Krishna will bear with him "as father with son, as comrade with comrade, as lover with spouse." (XI. 44.) Of the sincere worshipper Krishna says "None shall be dearer to me on earth than he." (XVIII. 69.) He promises to his worshippers freedom from sin and detachment from the confusions of the world. If they will come to him in the attitude of the *bhakta*, putting complete trust in him, giving him the utmost love and worship, keeping him ever in their thoughts, even to the house of death, seeing him in all objects of devotion and preferring him above all others, they shall attain peace. The "bright lamp of knowledge" will be lit for them, they shall reach "supreme adeptship"—everlasting bliss. Sometimes, the final stage is represented as "extinction in Krishna" (VI. 15) but more often the love which has been manifested towards individuals is continued in the continuance of their individuality in a condition of blessed communion with God.

If we now turn to the influence upon the theistic position of the philosophic borrowings which we have seen our author seems to have felt himself compelled to make, the question at once recurs, How is it possible to combine the varying systems—Sankhya, Yoga and Vedanta—into one view and estimate their joint effect? Though the Sankhya and the Yoga have many points in common they are by no means identical with one another, and the difference again between even their common elements and the Vedanta teaching is great. How then can we treat them together and attempt to estimate their joint influence?

It might be said, that pantheism in Indian thought has either failed to meet the problems of dualism already existent or has itself resulted in dualism. If we identify God and the world we find that, sooner or later, either

God is swallowed up in the world or the world is negated in God. Both phases of tendency are represented in the group of philosophies under consideration. If we try to place ourselves in the centre of them we find ourselves also in the mental situation in which the problem of pantheism was set. We find ourselves face to face with a dualism which is for pantheism an unsolved problem or an evidence of its want of success. But in this particular case of the *Gita* and its constituent elements, not only did pantheism fail to solve the problem, it also *hindered a solution from the side of theism*. The theistic enterprise is paralysed and is either unable seriously to face the dualism or has to be content with a facile solution which ultimately leaves the dualism more disconcerting than before. The ordinary consciousness, when face to face with human experience, may feel, in popular language, that "all is right with the world," or, in philosophic-theological language, that all is divine, but such contradictions make themselves felt, and the solutions of them may be found in flight. The world of Nature is to be left behind by the human soul and also by the divine soul. Nature has its own laws and will work according to these laws whatever we may do. Our highest wisdom is to recognize our detachment, to realize that none of the qualities which bind us to ordinary experience really belong to us. This is the stage of thought represented by the Sankhya and Yoga elements in the *Gita*. But, having thus divested the soul of all superfluous qualities, we may regard ourselves as having reached its fundamental elements, or, in general terms, as having reached reality, and the further emphasis upon identification with the divine is easily secured under the influence of the unifying spirit of the Upanishads. This identification may fill us with a certain amount of delusive contentment, but it does not send us back to the world again that we may cancel our detachment, reform the world and resolve the dualism, and in these considerations

we see the measure of its failure and the secret of its pessimism.

We have already found traces of the influence of the Sankhya philosophy in the detachment of God from the world and in the conception of Nature proceeding according to its own processes. "Works are done entirely by the modes of nature," God seems to exist merely for the purpose of implanting the germ of activity in Nature and in order to provide an objective towards which men may flee when they realize their essential separateness from Nature. Salvation is obtained when a man realizes this separateness and submits himself to the working of the cosmic principle. The ideal is that he should treat the world-process with indifference. But before he can reach this attitude of indifference he will have to pass through intermediate phases of thought in which the Nature which he cannot now interpret as akin to his spirit, will manifest itself as a relentless might. The mood of fatalism will precede in the individual mind the mood of indifference, and the confession of helplessness will come before the defiant assertion of insouciance. There are many illustrations of this sense of the oppressiveness of Nature—of the moods of Nature which perform all the work in an endless process of evolution and devolution. Even God becomes again identified with the relentless movement. Cf. XI. 32 "I am Time that makes worlds to pass away, waxing full and working here to compass the world's destruction." And this world-force presses with all its might upon the individual life. By it the warriors whom Arjuna hesitates to slay have already been given to death and the same might will compel Arjuna to fight whether he wishes to or not. (XVIII. 59.) "This thy resolve is vain, *Nature will drive thee.*" Every human being is insignificant in the presence of the world-forces, and is fit only to be "spun about as though set upon a whirligig." (XVIII. 61.) In the face of this world-might the only possible attitude, according to the teaching of the *Gita*, is one of indifference.

If we cannot resist we may simply submit and make the submission of as little consequence as possible by arguing that the soul is really unaffected by all the happenings of outward things. We may allow the world-processes to have their way with physical and social relationships. These constitute, after all, only the shell of our souls, and it matters not what happens to the shell whether this be our own or other people's. We may slay our friends in battle without compunction, reflecting that it is only their bodies which have an end. (II. 18.) To take an interest in anything mundane is unfitting. "It is not well to sorrow for any born things." (II. 30.) There is on the one hand no reason for sorrow in the objective fate of those who perish. Life in any case is an unmeaning misery, and "If we free men from life we shall do them good." (II. 32.) Subjectively, also sorrow is unfitting because it indicates unreasonable attachment to the world-process. Let us realize that the world is a vast system of necessity in which everyone must fulfil his function and meet his appropriate fate whether he will or not. Let us therefore take up the attitude of indifference. Let us leave behind "all the loves that dwell in the mind" and remain without "affection for aught." (II. 55-57.) Let our every motion be "void of love and purpose" (IV. 19) and let us "leave behind both good works and ill." (II. 50.) Thus shall we become "indifferent to honour and dishonour, indifferent to the interests of friend and foe, renouncing all undertaking" (XIV. 25) and attain to the spirit of the Ultimate who is also indifferent to all born beings. (IX. 29.)

Thus in this part of the *Gita* we find traces of the same indifferentism, the same sense of futility and fatalism, the same coldness of attitude to ordinary experience and relationships which are discoverable in connection with the Upanishads and the Vedanta, and we argue that this is a collateral if not a consequent phase of the unsatisfied craving for identity and the neglect of the possibility of transforming the world which are characteristic of the

more formal philosophy. We have an additional evidence of the impossibility of finding satisfaction in mere identification with the world; and the effort to find relief in mere detachment is an extremely natural consequence.

Two methods of attaining the attitude of detachment are indicated in the *Gita*, and here we come to a certain divergence between the influence of the Sankhya and the Yoga. Consideration is given both to the "Knowledge-Rule of the School of the Count" and the "Work-Rule of the School of the Rule." (III. 15.) The Sankhyans are represented as arguing that by knowledge only we can win emancipation from matter. The Yogins on the other hand argue that it is by work, culminating in pious meditation and devotion. The general opinion is that the methods of both knowledge and works are advocated in the *Gita* but that preference is given to disinterested action. But Sankara, in his commentary on the *Gita*, contends that such an opinion would be a mistake. He will not admit even that the two methods may be placed on a level with each other. He argues that if this were permissible Arjuna's question in III. 1 would be meaningless. It would be inconsistent to say that the "conjunction of knowledge and works is intended for all and at the same time to ask which is superior. It would be just as reasonable to ask, when a physician has prescribed a draught composed of two ingredients, which alone of the ingredients will be efficacious." (Cf. Shastri's Trans. of Sankara's Commentary, p. 19.) Consequently Sankara concludes that the teaching of the *Gita* is that "Salvation is attained by knowledge alone, not by knowledge conjoined with works" (*Op. cit.* p. 22. Cf. also *Gita*, VII. 17). He further argues that II. 21 teaches that action is impossible in the case of the enlightened man, and that therefore the acts which are enjoined by scripture are meant only for the unenlightened. Action is, of course, not useless, seeing that the path of knowledge is possible only for a select few; and, besides,

devotion to action may be a preliminary to devotion to knowledge. In his interpretation of XII. 12 Sankara gives what he conceives to be the true relation of the two methods. According to him this passage puts abandonment of the fruit of works (or performance of works with abandonment of fruits) at the top of a scale of merit only with reference to an unenlightened mind who cannot follow the higher paths. The idea would be that knowledge is best of all, but if this is impossible, then meditation should be chosen ; and, if this again is impossible, then we should take as our ideal abandonment of the fruit of works. As Sankara says "Abandonment of the fruit of all action is taught as a means to bliss in the case of an ignorant person engaged in action only when unable to tread the paths taught before but not at first" (*op. cit.*, p. 270). Sankara would support his contention also by reference to VII. 17. "Of these most excellent is the man of knowledge." Yet though there are in the *Gita* isolated passages teaching the superiority of knowledge over action, we cannot say that these passages are typical. If they were, we should have to bring against the *Gita* the same charges of excessive intellectualism as have been laid against the Upanishads and the Sankhya generally. We should have to point out, *e.g.*, that Sankara has restricted the path of knowledge to sannyasins only, and therefore has committed himself to the depressing doctrine that the highest kind of salvation is possible only for the few. We should also have to point out that in the beginning of his commentary on the twelfth book, Sankara seems almost to admit that the Unmanifest, who is reached by knowledge only, is too abstract to be a proper object of worship.

It is, however, possible to argue that the *Gita* not only refuses to put the path of works lower than the path of knowledge, but even urges the superior excellence of the former. Though Sankara may be successful in citing passages in support of a pure Sankhyan doctrine, he is by no means successful in explaining away the passages in

which the Yoga doctrine of the superiority of works is stated, and it is these latter passages which really give the prevailing tone to the book as a whole.

The typical reference on this point is in the beginning of Book III. Here the argument is that work is the natural condition of humanity—even if we wish we cannot avoid working. Therefore it is better to submit to this rule and to work in the proper spirit of detachment rather than to do no work at all. Cf. III. 4-8. “Without undertaking works no man may possess worklessness, nor can he come to adeptship by the mere casting off of works. For no man ever, even for a moment, abides workless. Every one is perforce made to do work by the moods born of Nature.” “Do thine ordained work, for work is more excellent than no work....Even the subsistence of the body cannot be won from no work.” (III. 4, 5, 8) Cf. also V. 2 : “The rule of work is higher than the casting off of works” and again XVIII. 7 “To cast off a binding work is not fitting: surrender thereof by reason of bewilderment is declared to be of the Gloom-mood.”

These verses are in clear contrast to quietism and altogether mark a healthy advance. There is a suggestion that quietism is somewhat abnormal and that the man who undertakes no work is out of harmony with Nature, is setting himself against the law of the universe and is therefore doomed to failure. The suspicion that in the adoption of this method he is defeating his own end is more clearly brought out in III. 6, where it is pointed out that, though a man may cease from external work, he does not thus put an end to mental activity or to the distraction of attention by the objects of sense. “He who sits with his sense instruments of action restrained, but with his mind dwelling on the objects of the sense instruments, is said to be a deluded soul, a walker in vain ways.” The way of works is, further, more generally effective. It is open to all and can set all men at least *on the way* towards knowledge.

Our author would, however, agree with the upholders of the knowledge-rule to the extent of allowing that surrender is necessary, but he would point out to them, that this is the surrender not of works but of the fruit of works. We are to work without concerning ourselves with the result of our labours. The binding works are to be "done as a duty, with surrender of attachment and fruit." (XVIII. 9.) We are to surrender ourselves to the inevitable processes of Nature, remembering that we are made to do works by the moods of Nature. (III. 5.) We must imitate the detachment of the Author of Nature, who so abandons personal interest that all work might from one point of view be said to be done by the moods of Nature. Even if we give full value to other passages in the *Gita* in which God is represented as sustaining the universe by His activity, we might still say that the subjective psychological detachment is complete. Though God must work to save the worlds from perishing (II. 24) yet in His work He has no desire and no need. Even though He works, His work is entirely selfless. In the processes of Nature He is simply providing a means of exercise by availing themselves of which human beings may work out their own salvation. It is this selflessness which the individual worshipper has to imitate. If the world cannot be conceived of as working out any adequate purpose of God, still less can it be expected to work out human purpose. It is at best a moral and religious gymnasium; it is without meaning in itself. As Barnett puts it, it is merely "an anti-chamber to eternity." (Introduction, p. 68.) We must indeed place ourselves within the world-process, inasmuch as pure passivity is impossible, but all work that we do must be void of attachment. If the whole meaning of any work is constituted by their fulfilment of selfish purposes, as in ambitious actions or ritual actions, designed merely to benefit the worshipper, such actions should be abandoned—unless they can be transformed into selfless

deeds. Other works may be described as fitting: they are prescribed for us by our particular environment. We must simply take them as they come to us, regarding them as the duties of our station. We must not seek to alter these duties or to transform in the light of a higher ideal than the immediate environment may suggest. The principle which underlies the institution of caste may give us sufficient guidance, and, should there be any want of adjustment between our caste position and our subjective capacities, harmony must be attained by adapting ourselves to the environment and not by attempting to adjust the environment to ourselves. Such conservative teaching we get in III. 35. "There is more happiness in doing one's own Law without excellence than in doing another's Law well. It is happier to die in one's own Law; another's Law brings dread."

The duties of our station must then be accepted without question and in the doing of them we must have no thought of "mine" or "I." (XII. 12.) Our every motion must be "void of love and purpose." "In works be thine office: in their fruits must it never be." (II. 47.) Our actions within the prescribed limits must be moderate as befits those whose minds are undisturbed by passion and affection. (VI. 16; II. 55. 57.) "Nothing in excess" might be our motto; we must not "trouble the world neither be troubled by it." (XII. 15.) We might sum up the teaching by saying that we must come subjectively as near to not doing the works as is consistent with the retention of sufficient will power to bring about their objective performance. Only by this detachment can we separate ourselves from the consequences of works, can we realize that the chain of causes and effects has in reality no meaning, that it represents no progress, but is merely a cyclic process, in which things will be in the end as they were at the beginning, and repetitions will become monotonous because of their endlessness.

It must be observed that even in connection with the doctrine of self-sacrificing works, we have not got away from the influence of the Sankhya philosophy with its emphasis upon the independence of the natural process. The exhortation to fitting works has hardly an ethical quality if these works are in any case forced upon us by Nature. In such case there is no possibility of human freedom, and if the natural process to which we are to conform has no meaning in itself, there is no possibility of progress. The appeals for selfless labour have indeed a certain amount of grandeur, but they fall far short of the inspirational value which they might have had if the selflessness enjoined had been a true antidote to selfishness. But the selflessness could only have had this effect, if it had been brought into connection with some great world-purpose in the pursuance of which we might forget our own narrow selves. But, as *it* is, we have here merely a refined form of selfishness, our efforts are directed mainly towards getting rid of our own misery and unhappiness. We are told that we may do this by realizing that our actions have really no consequences worth caring about. But here again we may ask the question whether the acceptance of a meaningless inevitable will give sufficient stimulus even for the actions which we are enjoined to do in order to bring about the end of detachment? Does it not seem as if there were an irreducible discrepancy between the end and the means provided? We are to work, but for what?—simply in order that we may realize that the works are useless as far as the fulfilment of anything else than a merely subjective result is concerned. Shall we not in such a situation be tempted to take a shortcut to quietism?

But there is another aspect of this matter which must be considered. The abandonment of the fruit of works is often represented as sacrifice, and in this we have a conception of great ethical and religious value. In connection with this may not the doing of these works in a selfless

mood be far removed from even the most refined selfishness,—may it not be the highest form of religious consecration. May it not imply the reaching out towards a higher Self, in love of whom the poor and low desires of the individual self may find their full satisfaction and thus die? Is not our acquiescence in the world-process, our passive performance of the duties of our station, just a surrender of ourselves to the will of God? Have we not here the highest attitude which it is possible for the human soul to reach,—an attitude in which all our little desires are swept into the strong current of the love of God.

There are many passages in the *Gita* which would seem to favour such an interpretation, and in so far as these passages dominate its spirit, it is free from the charge of negation. Whenever the author shakes himself free from the numbing influence of his philosophical inheritance, he places the whole movement of the soul upon a higher level. Love to God is to be the force which moves to all sacrifice, and such sacrifice will bring us into personal communion with Him. “He who does my work, who is given over to me, void of attachment, without hatred to any born being, O son of Pandu, comes to me.” (XI. 55.) The warm personal note of the concluding stanzas of the poem has already been referred to. We may compare also XVII. 65 “Have thy mind on Me, thy devotion towards Me, thy sacrifice towards Me, do homage to Me. To Me shalt thou come” and 68, 69 “He who in supreme devotion towards Me, shall recite this supreme secret amongst my worshippers, shall assuredly come to Me. None of men shall be to me more acceptable of works than he; none shall be dearer to me on earth than he.” We may also recall the ideas of the compassion and forgiving love of God which we have discussed above.

But at the same time this belief in and devotion to a personal God, which would have redeemed its whole teaching, does not get full play in the *Gita*. And the reason of this restriction brings us finally to a consideration

of the influence exerted by the abstract identity philosophy of the Upanishads. If this influence had been absent or if it had been less strong, the theism of the *Gita* would have been much more pronounced and much more effective in the ethical transformation of life.

Many traces of direct borrowing from the Upanishads may be found. Professor Garbe gives a long list of such passages in his introduction to the *Gita* (68). This list need not be repeated here. It is sufficient to say that the list contains some of the most characteristic passages in the *Gita*. Many striking metaphors also are transferred from the Upanishads to the *Gita*. The illustration of the fig-tree, *e.g.*, which occurs in Chapter XV is borrowed from the *Katha Upanishad* II-6-1. In general it may be said that the influence of the Vedantic conception of the relation between God and man is very far-reaching and it reinforces the influences which we have already found to be derived from the Sankhya philosophy. And, once more, the identity philosophy of idealistic pantheism is found to counteract a healthy theistic influence and to lead to fatalism, inaction and pessimism. In support of this contention we may notice first of all that the abstract procedure evacuates the idea of devotion of all properly religious and ethical meaning. We are to renounce all thought of the individual self in order that we may reach the eternal Self. But just as in the Upanishads, so here, the pantheistic identity between God and the world works out to a destruction of all the interest of the world and of finite individuals. Identity between the divine Self and the human self is reached by reducing both to the lowest possible content. We are to see "all things indifferently in the likeness of the Self." (VI. 32.) The world loses its meaning in the eternal. Behind the Personal God there is the Indefinable and the Unknown, and the attainment of identity with the abstract Being is the highest goal. (XII, 1-4.)

But what is the effect of this upon our practical view of life? Does it not show more clearly than ever the futility of the rule of works which much of the *Gita* is devoted to inculcating? Performance of works was to secure our deliverance, but the deliverance is merely deliverance *from*, and does not bring us to any positive religious result. Seeing that ultimate Reality is characterless, the world-process is meaningless and all our action in reference to it is meaningless also. As far as permanent importance is concerned the world-process is little better than a dream. Why then should we work in reference to it any more than we should, in waking life, labour to set right the confusions and perplexities of a dream? We could have gloried in the idea of sacrifice if it had been sacrifice to something or to some one, but sacrifice to an abstraction fills us with a sense of despair—it seems to be waste without any adequate reason for the waste. We are willing to lose our lower life in order to find a higher life, but when the higher turns out to be emptiness, the ideal becomes ineffective practically, however much theoretical admiration may be bestowed upon it.

Of course we shall be told that in urging a consideration of this kind we are relapsing to the lower level characterized by desire for the “fruit of works.” Such an accusation would be entirely unjust if it fastened upon us an opinion that the ideal may legitimately be a selfish one: and those who make the accusation are but too much inclined to lay a charge of this sort. We hold most firmly to the position that the ideal must not be selfish, but we hold with equal conviction that it cannot be *selfless*, either as regards the individual or the environment. The highest religious ideal cannot be expressed as a relation of identity in which the two terms—the worshipper and the worshipped—lose all character. It must be a relation of communion—not for the purpose of fulfilling selfish aims and desires, but for the preservation of the worthy past of our lives, giving it a place in a universe full of permanent character, connecting.

it with God, but not merging it in God. We demand that this ideal of personal communion—which is admittedly the ideal of certain portions of the *Gita*—should receive metaphysical justification if the efforts which the *Gita* urges us to make in order to reach the divine are not entirely to lose their meaning. The absorption of the individual in God—which is the ideal of those portions of the *Gita* which are most under the influence of the Upanishads—does not warrant us in taking any trouble to reach the ideal. And the motives are still further weakened if the God whom we are to reach is without qualities. It is impossible to stimulate men to action if their actions are to have no permanent results—if they cannot enter into and become part of the permanent purposes of God. A system of drill merely for the sake of drill soon loses all interest, and if it is to be voluntarily continued, it must be shown to have reference to physical wellbeing or national defence. Similarly with the actions which we call duties or describe by the adjective moral. They must be shown to have a place in a permanent scheme of things and to have relation to a God who is also moral. The influence of the high-toned unselfish morality of many portions of the *Gita* is greatly diminished when attention is turned to the portions influenced by the Upanishad ideal. Moral action can have value only in relation to a moral God and, if we find that God is non-moral, there is a danger that the obligations of morality will be weakened. We shall either fail to perform the duties or shall perform them in a lifeless mechanical way, as mere exercises of the soul and nothing more. If the ideal is that we shall “renounce all undertakings” we shall be apt to fulfil this condition before we reach the goal. If goodness, though it be the highest of the moods clear in its illuminating power and upward in its tendency, has yet to be passed beyond (XIV. 6, 16, 20), if “the Supreme takes unto himself no sin of any man and likewise no good deed” (V. 15) we feel that our struggle for righteousness ends in futility and a sense of deceptiveness in

all judgments of worth will take possession of us. We have tried to reconcile the world with God by denying the reality of the elements that obviously differ from Him—the suffering and the pain and the evil, but if we have also to deny the reality of what we had thought to be obviously divine, we are left helpless and forlorn in the midst of falling worlds. If good and evil are alike negated, why should we do the good rather than the evil. Our human nature may be theoretically, but certainly cannot be practically, satisfied by such an ideal as is described for us in XIV. 10. We revolt against the demand that we should be “indifferent to honour and dishonour, indifferent to the interests of friend or foe.” This “everlasting indifference of mind” (XIII. 9) seems everlasting emptiness. Alone we seek the alone, but even if a soul could succeed in its solitary search, it would find itself in a desert. It has lost the human companionship and it has not gained the divine.

And as we realize the appalling emptiness of the ideal and in our disappointment retrace our steps to the world of men and things, we remember that in the course of our search we have already definitely refused to find God in this world of ordinary experience. Yet we *have* to return to the world, and it will now be for us a world without God, a meaningless world, a world of constant process, but no progress,—from which the light has gone out and purpose has been excluded, but nevertheless a world of oppression and relentless might from which we cannot set ourselves free.

Thus in the *Gita* we have found certain doctrines which go a considerable distance in the direction of moral indifference, determinism and ultimate pessimism, and do much to counteract the influence of the healthy, ethical tendency, the assertion of moral freedom and the elevated religious ideal which we find in much of the rest of its teaching.* We feel that the *Gita* has not fully reckoned with the dualism which is either the inevitable consequence

of pantheism or is made more acute by pantheism. Neither has it fully reckoned with pantheism itself. It has admitted a secret enemy into its own household of faith, and allowed its highest religious influence to be impaired. Success will not be attained by simply putting the theistic ideal alongside of the ideal of abstract pantheism. The fundamental error of the latter must be laid bare. It must be shown that we cannot acquiesce in a facile identification of God with the world, or a perhaps less facile merging of the world in God, if we are to have any secure foundation for morality, progress and religion. For the ideal of deliverance we must substitute the ideal of salvation, and salvation not only for the individual but for the world. In the *Gita* there is much to give us hope but also much to cause us to despair, and amongst the causes of despair the chief place is occupied by its pantheistic inheritance.

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SYNDICALISM IN THE LIGHT OF HISTORY.

BY ELBRIDGE COLBY.

SYNDICALISM is a new force amongst us. It has been developed in France as a result of peculiar labour conditions and is now taking hold in the United States. It promulgates class struggles with a view to obviating capitalistic exploitation of labour, to making all industries co-operative—owned by the workers and not by capitalists—and to accomplishing this transfer by the general strike or any other expedient method. Its working hypothesis is a firm belief in the right of the labouring man, in order to gain what he deems legitimate ends, to obstruct by any means within his power the regular process of production.

In the Autumn of 1912 there was formed the Syndicalist Educational League for the direction of the activities of both the organized and unorganized workers of America. This is the present practical manifestation of an attempt at precise application of revolutionary philosophy. The league aims at teaching the doctrines of the *French Confederation Generale du Travail*, e.g., the general strike, *sabotage*, and boycott, the organization of the unorganized, and industrial action generally as opposed to political action. The ultimate objective of all action is to be the ownership and control of each industry by the workers employed in it, with all industries co-ordinated by means of a Federal Board. The method they are employing in New York is that of permeating the rank and file of existing unions with the syndicalistic ideas. They aim, not at destroying the American Federation of Labour, the form of which might be well

suited to their purpose, but at revolutionizing it from within by means of educational propaganda among its members. It is in this respect that the Syndicalist Educational League differs essentially from the Industrial Workers of the World. The "I. W. W.," as they are called,* have a like objective, and similarly, especially, in the Chicago-Los Angeles division in distinction from the Detroit body, believe in and preach the general strike, *sabotage*, and the rest; and of course actually organize the unorganized. But they leave the established unions severely alone, or seek rather to destroy them by building up a rival organization, judging the unions incapable of being revolutionized from within. In addition they believe in the centralization idea, one big union for all workers. Pure propaganda and active agitation are thus the items of the programme of this new Syndicalist League; its function is chiefly "to educate the proletariat to the necessity of effective, revolutionary, and economic action in the conduct of labour's struggle against capitalism."*

It is a new force in our midst. It is a sublimated Trades Unionism,—dynamic, rather than static.

Syndicalism is the revolutionary philosophy of labour. It has arisen as a synthesis of the radical ideas of the parlour philosophers and of the fundamental spirit of practical revolt to industrial slavery. Philosophically, it is based on the conception of M. Bergson that the world, life, and society are continually in motion and cannot be fixed by laws. A snapshot is taken; time moves on and the picture is straightway of the past and not of the present. And so, a generalization of even the most radical ideas soon becomes "out of date," conservative, reactionary, representative of a desire for the persistence of certain institutions. *We* shall judge for to-day but must leave it to posterity to judge for the future. We must put no

*Mr. Ernest Thurstle, Secretary of the New York Syndicalist Educational League, has been kind enough to give me rather full authoritative information concerning the propaganda, aims, and purpose of the American organization.

restrictions on coming generations ; our right is self-government, and we must not forget that the right of our children, and even the right of the slightly altered society of next week or to-morrow, is also self-government. These are the ideas on which this philosophy is founded and we can see that their application would obtain much in common with pure Anarchism.

It is now a commonplace of intellectual history that the French Revolution has been responsible for the gradually accumulating nineteenth century irreverence for tradition, and for the spread of a secure faith in Rationalism and of resistance to oppression. This influence was very marked in both English thought and French thought, English labour movement and French labour movements.

In the summer of 1789 news of the Revolution came from Paris and startled the English court, the 'English "intellectuals," and the workers of the English nation. A spirit of sympathetic radicalism arose among the philosophic followers of the early Rationalists. Numerous Revolutionary Societies, Societies for Information and Corresponding Societies were formed in London. Yet, the mass of the people of the England of the last decade of the eighteenth century did not take kindly to this "radicalism," as it later came to be called. They tended to reaction from the principles of the French Revolution and followed the conservative champion Burke rather than the visionary revolutionaries.* With him they believed, and raised their hands in horror at the fact, that "the French had shown themselves the ablest architects of ruin that had existed in the world."† But this popular feeling and sentimental attachment for the decayed institutions of other years was ever after engaged in perpetual combat against the heritage of revolt left by the "radicals."

* Lecky : *Hist. Eng. 18th Century*, vol. v., page 486. W. Hunt : *Hist. Eng. 1760-1800*, page 330. Cam. Mod. Hist., vol. viii., page 157, chap. 25. Sorel : *L'Europe et la Revolution Francaise*, vol. ii., page 16, 144.

† Works Edmund Burke, Boston, 1807 ed., vol. iii, page 5.

There was Mary Wollstonecraft, author of *The Rights of Woman*, early teacher of feminism and first of the suffragettes; Tom Paine, energetic advocate of freedom and vigorous assailer of established religion; Thomas Spence, who presented a sort of Henry George land scheme; and John Thelwall, "denouncer of abuses in the industrial and economic life of the nation." Chief member and foremost exponent of this school was a "slender dissenting minister of gentle manners and quiet habits," William Godwin. He, author of *Necessity* and of *Political Justice*, had the widest influence of all and his chief thesis was the abolition of property, and all other institutions, but especially property and precedent. He is held to-day the founder of Anarchism. But, in his own time, he was considered too deeply philosophical to be dangerous. He lacked the bold, ruthless invective of Paine. He was a "closet philosopher," a "parlour radical" and ended his life under the patronage of the Grey Ministry. But as a philosopher he yet provided men of action and men of words with the ammunition of radical ideas. Spence, Gerrald, Thelwall, Frend and Barlow, of the revolutionary societies, all harked back to theories promulgated at simple dinner parties in the home of Godwin. Wordsworth was moved by "Godwinianism" as much as by "Rousseauism;" the Shelley of the *Notes to Queen Mab* was actually proud to be able to sit at the feet of Godwin; and there may be traced in Bulwer-Lytton influences which grew out of a friendship for the pale little clergyman. The spark of this theoretical radicalism, kept alive partially by William Cobbett, later merged with the practical and economic radicalism of the Luddite riots to produce the Chartist agitations; and this was the direct contribution of the French Revolution to British rebellions and popularist movements of the nineteenth century.

It merged with them; but still it never combined properly. It was as if two chemicals were in solution without reaction. The frame-breaking disturbances of

1811 and the few years following were all purely labour riots. The real attempts at radical reform were kept in the sphere of pure politics. To be sure, the passage of the Reform Bill of 1832 and the presentations of the three great Chartist petitions were made possible by a stirring up of the lower classes. In 1832 the promise to the workers was, that they should soon procure the same political rights as the middle class were even then procuring. In three Chartist movements the motive was admittedly political ; and political reform was presented to the workers as a mere step to social and economic reform. But, the fine flower of early radicalism which received its first impetus from the drums and tramlings of the French Revolution has failed in England to inspire the workingmen to violence, and it has failed because British radicalism has chiefly been of the " parlour " variety, because it has sought to use the labouring classes instead of to aid them, because it has been a movement of the middle class to secure their own benefit and afterwards to forget the labourers. A consideration of the facts will lead us to no other conclusion but that Carlyle was wrong when he said in 1839 " the living essence of Chartism is born of the bitter discontent of the English workingman." Carlyle was wrong : Chartist agitation was but the result of exploitation of this " bitter discontent " among the British workingmen in order to produce " demonstrations," even " monster demonstrations," which should assist in gaining the ends of the bourgeoisie.

This is the reason that, until recently, there has been no Syndicalism in England. The labouring class has always desired to better its condition ; but the issues were confused. From the early frame-breaking disturbances and the famous Manchester riots to later co-operative stores, O'Connell land schemes, Corn Law Leagues, and Trades Unionism, the workers have sought to accomplish their own ends in their separate conditions ; and, from the Liberal parties in Parliament, there have been many

concessions from the Government, culminating in much really beneficial social reform accomplished in the opening decade of the twentieth century.* In addition, throughout the nineteenth the workers were also involved in the continual struggle for those political rights which had been secured by the French in the rush and roar of one great state whirlwind, in the principle of 1789. England has spent the nineteenth century catching up to France; and British labour troubles were obscured by the more important fight in the arena of politics. Syndicalism marks the advance in revolutionary France beyond 1789. We may note in passing that in many of the British railroad strikes of the last three or four years there has been a decided syndicalist colouring in the aggressions of the workers; and this colouring has been of the nature of a change effected in existing unions through educational propaganda rather than any real growth from fundamental conditions. Until England catches up politically syndicalism cannot become as widespread as across the channel; and it is probable that before she does catch up, the Liberal Party now in office will have relieved many of the grievances out of which a syndicalist movement might rise.

So, as we stated in the beginning, Syndicalism is peculiarly a French institution and it is applicable only in countries with general political freedom. It is applicable only where the workers can be deceived into imagining that the gospel of the Rights of Man according to France and America has been tried and found wanting. It is a supplement to political equality which shall guarantee social and economic equality. France and America, its advocates say, are the only countries really ready for syndicalism because they are the only ones where the "illusion" of political equality as an ultimate goal is no longer confused with social and economic equality.

* Hayes: *British Social Politics* deals with these reform measures. The last paragraph in the book is significant of all such political action. It is a quotation from the speech of Mr. Asquith and he speaks of the Government "conferring the greatest benefit" upon the British workingman and upon mankind.

Thus, Syndicalism, grown from certain French tendencies and conditions, has no exact analogy in British radicalism of any period—the British radicalism, until recently, has always been theoretically and practically aimed at gaining universal manhood suffrage and at other political ideas and ideals which the French left behind them during the stormy years from the Oath of the Tennis Court to the Guillotine and The Terror.

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The Industrial Revolution resulted from a combination of the eighteenth century Commercial Revolution and the eighteenth century inventions substituted the man-directed machine for the man-driven tool, and caused a change in the world's work from domestic and scattered to factory and capitalized manufacture. The labourers thus became mere operatives instead of artisans: they were thrown into competition with machinery and, when the machines operated by women and children conquered the skill of men, they became the objects of capitalistic exploitation. The factory system developed; and slums began to be in evidence. Personal interest between employer and employee ceased to exist; and the men lived, and worked, and were paid, from day to day.

In 1791 Tom Paine said: "Whatever the apparent cause may be, the real cause of any riots is always lack of happiness." The change in the world's work which we have called the Industrial Revolution caused considerable "lack of happiness" among the working classes. In England the chafing at new conditions emphasized itself in Luddite riots, and in Reform Bill and Chartist demonstrations that aimed to secure redress through politics. In France the labourers learned that politics, in which they had already been admitted to full privileges, had nothing to offer them, and sought from the start to gain their ends by direct and economic action. And so, most important of all, the revolutionary tradition, which in England had died out in vague radical theories, immediately

became in France the moving force of economic struggles.

The first union, in France, a union of carpenters, was formed in 1790 immediately upon the passage of the law which granted the privilege to men of every class "to assemble peacefully and to form among themselves free associations, subject only to the laws which all citizens must obey."* But, during the same year, again in 1803, and again in 1810, laws were passed which prohibited all such coalitions: especially those among workers "to suspend, hinder, or make dear labour."† Yet, in spite of this, there sprang up various trade organizations called "*compagnonnages*," largely of the benevolent type with fantastic rituals, and other organizations very particularly designated as *societes de resistance* for the direction of strikes bettering the situation of the worker. These were attempts analogous to those of the English Luddites and Trades Unionists except that they were movements better organized and directed to more tangible and more immediate ends.

During the decade 1840-1850 two noteworthy contributions were made to the labour situation. Marx and Engels emphasized the importance of the workingman in their theory of the Economic Interpretation of History and first definitely promulgated the idea of a class struggle summarized in the ringing words with which they closed the Communist Manifesto:—"The proletarians have nothing to lose but their chains. They have a world to win. Workingmen of all nations unite!" Karl Marx has shown in his book on *Capital* that he knew the economic situation; and Frederick Engels has shown in his book on *The Working Class in England in 1844* that he knew the wretched condition of the "exploited" labourers. The contemplation of these facts leads us to

* *Les Associations Professionnelles Ouvriere, Paris*; 1899, vol. i., page 7.

† *Ibid*, vol. i., page 18.

realize that the ideas of Engels and Marx were not mere dreams. They were founded on the most real of all realities, poverty—poverty in its most awful form and as an inevitable result of economic conditions. It was against these conditions that the leaders were urging the workers to co-operate in battle.

The other contribution was the co-operative idea. The transformation of *Le Journal du Peuple* into *La Reforme* in 1843 marked the beginning of Socialist propaganda, the inception of a communist ideal rather than the Owen, or Saint Simon, type of Utopian dreams. Louis Blanc insisted on the right of all citizens to employment and, though the national workshop scheme failed, the idea of the “organization of work” persisted as a moving force in French labour tendencies. It persisted and, in spite of the hostility of the government toward combinations of any sort, association of the workers was urged continually until the Ministry announced in 1868 that the government would permit the labouring class to organize under equal condition with the employers. These years, from 1848 to 1868, were approximately those in which Trades Unionism in England expanded and increased with a clearer consciousness of its function and its purpose. Organization of the workers as a class, which Marx and Engels had advocated in 1844, was in the very air.

The International Association of Workingmen, formed in 1864 and, given a new lease of life under government toleration, was the genesis of modern syndicalism. Three elements were prominent in this body: the advocates of the Proudhon doctrine of mutuality based on the assumption that the workers must achieve their own salvation and not trust to others; the advocates of the co-operative idea of earlier movements and earlier struggles; and the advocates of Blanqui Communism. It was planned to use the general strike in order to make the workers the possessors of all the instruments of production. The International did not amount to much as an organization, for its

direct influence was destroyed in the upheaval of the Prussian War, the establishment of the Third Republic, and the disturbance of the Commune.

The rest of the history is fairly brief. Before the Franco-Prussian War the means and aims of labour action had been formulated, had been crystallized into certain black-and-white principles. Later it only remained for the labouring classes to be educated to an acceptance of them and for the "conscious minority" to put them into operation.

After the establishment of the Third Republic, organization of the workers was straightway begun anew. The inclination during these years in French History was toward the formation of political parties, as, for example, the Church Party was just beginning to become prominent. This inclination showed itself in labour circles in two ways: it helped in the establishment of the associations; and it later caused a division. Some wanted to organize the working class into an efficient political machine; others wished to eschew politics altogether. The first group, called the Broussists, aimed to accomplish their ends through a political control of the established municipal and national governments. The second group, the Guesdists, indulged in politics but simply as a temporary expedient. Political office was to be sought and held by them, only in the spirit of Marx and Engels—that it might be used as a convenient rostrum from which to educate, assemble and lead the proletariat. The field of political struggle was to be a convenient rallying place until the time was ripe for more direct advance, until there should come "the revolution which the nineteenth century held within itself." The process was one of developing and preserving in political organization an effective instrument for future economic struggles.

Syndicalism arose from the second of these groups and arose as the result of still another split, this time on the principle of the general strike. In 1886 the various local *syndicats* (from which the name syndicalism is derived) which had existed as scattered unorganized workingmen's

clubs for the purpose of superintending strikes and securing improvement in conditions of labourers, a growth of the *societes de resistance*, were centralized into the "National Federation of Syndicats." This body was of small importance for some time because it was overrun and exploited politically by the Guesdists; but it was intended to be a great fighting machine, an unceasing and unrelenting enemy of capital. In 1887 the Broussists established the first *Bourse du Travail*, a local labour exchange in Paris for organizing the workers in the ordinary course of business and for assisting those in search of employment. In 1892 the scattered and unorganized labour exchanges were centralized under the "National Federation of *Bourses du Travail*"—a peaceful parallel to the National Syndical Federation, aiming to carry out on a larger and more comprehensive scale the work of the locals and to gain from the Government various social and labour reforms. These two national federations existed side by side until in 1895 they combined in the *Confederation Generale du Travail*.

The *Confederation Generale du Travail* has maintained the idea of co-operation among the workingmen, the tradition of the general strike and economic action rather than political action, and the aim of collectivity. This is the body which has federated the French labourers, directed the strikes, and has ever aimed at an ideal situation where the workers in each industry shall own and control their own production. In other words, their plan of procedure includes the fighting aid of the syndicats to accomplish an end of co-operative ownership. "The *Confederation* seems to combine two elements, one of which is hateful and is, also, the most in evidence and the most active,—the revolutionary spirit. The other must be sought *sous la gangue*, and is excellent—the reforming spirit. The question is whether the professional and reforming spirit can triumph over the other, for the future of the *Confederation* depends upon the line it takes in this matter."*

* M. Saint Leon, in speech at Amiens, August, 1907.

Syndicalism, then, as the word has come to be accepted to-day, denotes both an end and a method.* The end shall be a perfected Trades Unionism where, as to-day in Italy in the farming and the bottle-blowing industries, large and extensive plants are successfully operated by the workers and for the workers. Where Unions are, as it were, horizontal and combine members of a single trade in all industries, the *syndicat* is a vertical combination of members of all trades in the single industry into a practical working unit in the organization of the world's work—as much of a unit as the old-time eighteenth century worker of the domestic hand-loom. The method of arriving at this ideal, social and economic condition shall be a forcible taking over of the industries out of the hands of the employers or the peaceful establishment of new plants of purchase of old. As the capital of the *syndicats* has been yet very limited, they cannot purchase or establish; and so the active work of those bodies has been chiefly confined to aggressive measures, such as the general strike, *sabotage* and boycott. The federation of *syndicats* now includes workers on the railways, in the iron business, in weaving and spinning factories, in mining, in the building and food-stuffs trades. Their attacks have been of the nature of complete cessation of work, the confusion and direct disobedience of orders, and violent attempts to appropriate private property in the name of the *syndicat*. It is hoped by the agitators that some of the capitalists may become discouraged and abandon their plants so that the *syndicats* can simply assume control and continue production.

In this wise has the syndicalist movement gained headway in France. It is the modern practical fusion of the desire of the workers for improvement of present conditions and of the theoretical idea of the intellectuals. The practical view was predominant at the Congress of Amiens

* * The Congress of Amiens in 1906 voted that "the *syndicat*, now a group of resistance, in the future will be the group of production and of distribution, the basis of social organization."

in 1906 which voted that this "double task of every day life and of the future follows from the very situation of the wage-earners, which exerts its pressure upon the working class and which makes it a duty for all workingmen, whatever their opinions or their political or philosophical tendencies, to belong to the essential group which is the *syndicat*" and that "in order that syndicalism may attain its maximum of effectiveness, economic action should be exercised directly against the class of employers." The movement has always retained this practical aspect of an hand-to-hand struggle between Capital and Labour at the very door of the factory and has not been dragged away from its immediate object by the irrelevancies of the political arena. M. Hubert Lagardelle, formerly a leading advocate but now out of direct sympathy with syndicalism because he disapproves of violence, recently rendered the following judgment:—"It is a sign of force that syndicalism does not refuse to criticize itself. It presents itself as an interpretation of life. It must be moving as life, and always on the level of experience It corrects itself by learning."* *It must be moving*: these words suggest the identity of the syndicalist idea with Professor Bergson's Philosophy of Change. *It must be moving*: and it plans for the years to come. "The syndicalist 'Charter,' voted at the Congress of Amiens in 1906, was an historical prospect rather than a reflection of the present. It was a view of the future."† Through all the records of syndicalist action in France the whole attitude has been particularly practical, unhasty, deliberate, and far-seeing. ‡

The syndicalist movement in France has had its reflection in America in the activities of the Industrial Workers

* *Le Mouvement Socialiste*, September-October, 1912, No. 244, page 163.

† *Le Mouvement Socialiste*, September-October, 1912, No. 244, page 161. Substantially re-affirmed at the Congress of Havre, September 16, 1912.

‡ *Le Mouvement Socialiste*, November, 1912, No. 245, page 270; Gaston Levy says of the Congress of Havre: On the other questions in the order of the day the same care of precision prevailed and also the same desire to sacrifice even individual preferences to the organic unity.

of the World, a body somewhat akin to the Olde Knights of Labour and a branch of which directed the famous Lawrence strike. In 1905 the I. W. W. definitely adopted the present programme, a combination of Industrial Unionism and political socialism: The conception of the general strike, however, differs from the syndicalist conception—the American idea is to stay at work, declare the factory their own property, and simply continue on a co-operative basis. The French *Syndicats* would resort to *sabotage* or to a general strike. Recently the I. W. W., in accordance with the seeming rule that labour troubles cause continual disagreement and division, has been split into two camps, even two separate bodies, the “Detroit” I. W. W. and the “Chicago-Los Angeles” I. W. W., the second of which is the body seceding on the question of violence and the advocacy of admittedly unlawful measures. Mr. J. J. Ettor is said to have addressed the dissatisfied hotel servants of New York a short time ago telling them to do the work for which they were paid “with minds made up that it will be the unsafest proposition in the world for any capitalist to eat food” prepared by members of their union. He is said to have spoken these words as the representative of the Chicago-Los Angeles camp of the I. W. W.* So, the Chicago-Los Angeles division, instead of merely staying at work, and instead of merely walking out, would attack vigorously, either from within the plant or from without, the entire property and the capitalist owners as well.

Both camps of the I. W. W. conceive the present unions affiliated with the American Federation of Labour to be slow, out-of-date, ineffective, and even sold to capitalists. They aim to accomplish their results in the face of the Federation and have no fear at antagonizing that body. But the I. W. W. advocate centralization into one big union and the anarchist backers of the wage-earners flee with terror from any idea of centralization. So, the anarchists

* Cf. New York Sun, Editorial Page, 13th January 1913. Also, Independent, 23rd January 1913.

themselves have recently been instrumental in forming the new Syndicalist Education League, an organization seemingly of pure propaganda. In their own words* they claim to represent "the modern revolutionary labour movement in its aim of expropriating the possessing class and of establishing a free economic society based on voluntary co-operation and the principle: to each according to his needs, from each according to his ability." But their whole attitude is one of education.

Syndicalism did not take hold very strongly in England until 1910 when Ton Mann founded his magazine *The Industrial Syndicalist* and until the newly formed "Industrial Syndicalist Educational League" took up his work in *The Syndicalist*, another magazine. The idea in England was purely one of education, aside from politics and within present labour organizations. And, in like manner, the purpose of the Syndicalist League in America is to "educate the proletariat" to abolish "wage slavery" and to "substitute in its place a new economic system based on the free co-operation of the productive syndicates." It is a bitter enemy of "indirect political tactics and all other reactionary and corrupting tendencies . . . which are so harmful to the solidarity of the worker."*

And so, Syndicalism, born in France, and recently adapted in England and America, is the latest modern labour movement. It is the only one that has acted with definite cognizance of contemporary conditions, with well-defined plans for the future, and with a certain spirit of self-criticism and self-correction. It is because of this threefold merit that the syndicalist idea has gained such credence among the workers and is becoming dangerous to the capitalist and the manufacturer.

We close with a quotation from a resolution of the twelfth *Confederal Congres du Havre*, held September

* Circulated pamphlet.

16-22, 1912,* which may be taken as the latest formulation of syndicalist theory :

“In its daily claim, syndicalism seeks to co-ordinate the efforts of the workers, the accomplishment of better conditions for the workers by the realization of immediate improvements such as the shortening of hours, the increase of wages, etc.

“But this work is only one phase of the syndicalist programme ; it prepares for the complete emancipation which can only be realized through the capitalistic expropriation ; it advocates as the means of action, the general strike, and considers that the *Syndicat* to-day, a unit for resistance, will become in the future the unit of production and distribution, based on the social reorganization.

“The Congress declares that this daily work of to-day and of the future comes from the wage-situation which weighs down the working class, and which imposes upon all workers, whatever may be their philosophical or political tendencies, a duty to belong to the fundamental unit which is the *Syndicat*.

“As a consequence, in whatever concerns the individuals, the Congress proclaims complete freedom for the members to participate, outside of the corporate unit, in such activities as correspond to his idea in philosophy or politics and limits itself to demand of him in return only that he should not introduce into the *Syndicat* opinions professed elsewhere.

“In whatever concerns the organizations, the Congress declares that, in order that syndicalism may attain its maximum strength, economic action must be exercised directly against the employer ; the confederated organizations must not, as the syndical groups must not occupy themselves with parties and sects which, above and beyond, can without restraint seek to accomplish their transformation of society.”

ELBRIDGE COLBY.

Columbia University.

* *Le Mouvement Socialiste*, November, 1912, No. 245, page 269.

THE ELIZABETHAN VOYAGES.

BY JAMES W. HOLME.

IN 1618 Raleigh, the last of the voyagers, laid his head almost blithely upon the block in Old Palace Yard, finishing thus for a time the strange stories of Elizabethan adventure. Hawkins and Drake and Frobisher, who with him make up the great group of voyagers, were dead long ago, all of them in harness ; Frobisher of a gunshot wound, received at the storming of Crozon in Brittany in 1594, Hawkins and Drake of disease within a few months of each other, the one at Puerto Rico, the other at sea in Nombre Dios bay, both on the same ill-fated voyage of 1595-6. The great heroic stories of high adventure, the adventurers themselves with their golden dreams of Manoa and the new road to Cathay, seemed to have passed for the time into the limbo of things forgotten, leaving a record of apparent failure, of high hopes thwarted, of results which at first sight appear out of all proportion to the pouring out of gallant blood, to the long and painful list of miseries cheerfully borne. The gentlemen adventurers and the mariners with them had died of every imaginable disease in strange seas, or, shrinking from royal neglect, in the bye-ways of English seaport towns ; they had eaten "strange flesh, which some did die to look on," and drunk bilge-water when becalmed in tropic seas ; they had pined in Spanish prisons, or made their "act of faith" when handed over by the Inquisition to the secular arm. And to what end ? Frobisher's dream of a North-West passage to India remained unfulfilled to our own day when Amundsen traversed it in 1903-6 ; at Raleigh's death, his scheme for the planting of Virginia had, after five abortive expeditions, long passed into other hands. Peru, Brazil and Mexico had yielded but a small part of their treasures of gold into

English coffers, and Spain was stronger on the seas than before the Armada. Yet this is but a partial account, for these pioneers had blazed a trail round the world that eighteenth century navigators would follow, and in doing so would lay the foundations of British Colonial expansion. They had astonished England with accounts of the riches of both Americas; they had laid open long vistas of possibilities for English enterprise. Drake, in 1573, had stood in the branches of the solitary tree that crowned the ridge above Panama, and seen on either hand the oceans, the Pacific and the Atlantic, into the former of which the prow of no English ship had ever burst. Then and there he prayed "that God might give him life and leave to sail in an English ship upon that sea." Previously he had shown his men "the mouth of the Treasure-house of the world," the door of the bullion-room at Nombre Dios in Mexico, and this treasure he had determined to tap. How that resolution was kept may be read in the plain straightforward narrative of Francis Pretty, one of Drake's gentlemen-at-arms. The plan formulated was to pass the Straits of Magellan, to sail along the coasts of South America as far North as Peru, and to attack its rich unfortified ports from the South, a direction from which Spain believed herself safe from English raids. Laden with plunder,* Drake found the way of retreat barred, for Cape Horn was unknown,—Tierra del Fuego supposedly being the northern extremity of a continent stretching to the South Pole,—the North-West passage impossible. Thus this circumnavigation of the globe, enormously daring in plan and execution, was the result of circumstances. He sailed North to California, landing perhaps at some point North of San Francisco, and took possession of it for the

* "Captain Drake carried from the coast of Peru eight hundredth sixty-six thousand pezoës of silver . . . all which summe amounteth to a million and thirtie-nine thousand and two hundredth ducats. Besides this silver he carried off a hundredth thousand pezoës of gold . . . which sum amounteth to an hundredth and fifty thousand ducats; over and besides the treasure in the sayd ship (the value whereof I cannot learne) consisting of pearles, precious stones, reals of plate, and other things of worth." *A Discourse of the West Indies and South Sea written by Lopex Vaz a Portugal, in Hakluyt.* (A Portuguese ducat was worth 5s. 4d. in the English money of the day).

Queen. Thence he proceeded to the Philippines and the Moluccas and home by the Cape of Good Hope. On the 3rd of November, 1580, the *Golden Hind* dropped anchor off Deptford, deep-laden with the loot of two continents. The voyage marks an epoch in English Naval history. Drake had plundered Spain in her greatest stronghold; he had been the first Englishman to sail the Pacific and Indian Oceans, to visit the fabled isles of the South Seas, and to realize the dream of Columbus to sail to the East by way of the West.

Such a feat was but typical of a hundred less-renowned voyages, the effect of which upon the minds of Englishmen is expressed in the *Epistle Dedicatorie* of Hakluyt prefaced to the first edition, 1589, of his *Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation*. "For, which," he writes, "of the kings of this land before her Majesty, had theyr banners ever seene in the Caspian Sea? which of them hath ever dealt with the Emperor of Persia, as her Majesty hath done, and obtained for her merchants large and loving privileges? who ever saw before this regiment, an English Ligier in the stately porch of the Grand Signor at Constantinople? who ever found English Consuls and Agents at Tripolis in Syria, at Aleppo, at Babylon, at Balsara, and, which is more, who ever heard of Englishmen at Goa before now? what English shipper did heeretofore ever anker in the mighty river of Plate? passe and repasse the impossible (in former opinion) Straight of Magellan, range along the coast of Chili, Peru, and all the backside of Nova Hispania, further than any Christian ever passed, travers the mighty breadth of the South Sea, land upon the Luzones in despite of the enemy, enter into alliance, amity and traffike with the princes of the Moluccaes, and the Isle of Java, double the famous Cape of Bona Speranza, arrive at the Isle of Santa Helena, and last of al returne home most richly laden with the commodities of China, as the subjects of this now flourishing monarchy have done?" Poetically

this expansion of physical horizons is echoed in the apology of Spenser for the fabulous descriptions of his fairy world.

But let that man with better sense advize
That of the world least part to us is red ; [known]
And daily how through hardy enterprise
Many great Regions are discovered,
Which to late age were never mentioned.
Who ever heard of th' Indian Peru?
Or who in venturous vessel measured
The Amazon huge river, now found trew
Or fruitfulest Virginia who did ever view ?
(*Faerie Queene* II. Intro. ii.)

Action and imagination went hand in hand in the Elizabethan age. Behind all the literary impulses of these years lay a world of vivid life, in which the voyagers played their part by revealing a world fair with promise. The English, long isolated from the workings of European policy, found themselves in the lists where the prize was world dominion. Hawkins and Drake had exhibited the possibilities of the individual adventurers, the Armada produced an exalted sense of collective national potency, and these enthusiasms are intimately reflected in the most intensely national period of English literature. It is more than a mere coincidence that Hawkins' first voyage is contemporary with the interludes and moralities, the preparations for Raleigh's disastrous record voyage to Guiana with the death of Shakspeare. Seamen-adventurers, Drake and Frobisher, ransack strange lands and explore undreamt of seas; the voyagers through intellectual realms, Marlowe and Shakspeare, return laden with wares even more fantastically wonderful. Thus did the widened limits of the world stimulate speculation beyond physical boundaries, for all mediæval notions of cosmography, of politics, of social theories went by the board when the tales of the navigators filtered through a world at first half-credulous of them. The new and vigorous life of the Tudor age expressed itself first in the quests of English sailors, later in the burgeoning of poetry and prose, and it is easy to find evidence of the way in which these two

phenomena, physical and intellectual, reacted upon each other. In the first place, the voyages provided subject-matter, material strange but true, for the "prose epic" of Elizabethan England, the work known best and shortly as "Hakluyt's Voyages," but in addition they struck the imagination of English poets from many angles. It is a pleasant, and by no means an improbable flight of the imagination, to picture the youthful Shakespeare coming up wide-eyed from Warwickshire lanes, and mingling, in the interludes of his early traditional work of holding horses at theatre doors, with the bronzed sailors on the wharves, hearing the exploits, still freshly remembered, of men who had harried the Armada up-channel and round the eastern coasts; drinking in wild tales

of most disastrous chances,
Of moving accidents by flood and field,
Of hairbreadth scapes i' th' imminent deadly breach;
Of being taken by the insolent foe
And sold to slavery
. . . . Of antres vast, and deserts idle,
Rough quarries, rocks, and hills whose heads touch heaven,
And of the Cannibals that each other eat,
The Anthropophagi, and men whose heads
Do grow beneath their shoulders. (*Othello* I. iii.)

That Shakespeare knew and loved the sea is evident. The handling of the ship in the first scene of the *Tempest* has received expert praise, but in a more indirect way we see how the sea itself, its mystery and fascination, worked upon his mind. It provides him with some of his finest images, as in the meeting of Othello and Desdemona, (*Othello* II. i)

If after every tempest come such calms,
May the winds blow till they have wakened death!
And let the labouring bark climb hills of seas
Olympus-high, and duck again as low
As hell's from heaven!

or when Edgar peers over the beetling Dover cliffs (*King Lear* IV. vi)

The murmuring surge
That on the unnumbered idle pebbles chafes
Cannot be heard so high,

or in the clown's description of the shipwreck on "the seashore of Bohemia" (*Winter's Tale* III. iii.) "Now the ship boring the moon with her mainmast, and anon swallowed with yest and froth. . . . to see how the sea flap-dragoned it:—but first, how the poor souls roared, and the sea mocked them;" or, finally, and most consummate of all, in Othello's description of his passion of jealousy (*Othello* III. iii.)

Like to the Pontick Sea
Whose icy current and compulsive course
Ne'er feels retiring ebb, but keeps due on
To the Propontick, and the Hellespont,
Even so my bloody thoughts, with violent pace
Shall ne'er look back.

What did the Elizabethan poets at large know of the stories brought back, "far-fetched and dear-bought," by the voyagers of their age? There is little in the greater literature of the time of direct reference to the adventurers and their exploits. Warner, in the enlarged edition of his *Albion's England* (1602), celebrates in verse, pedestrian and commonplace enough, the north-east voyages of Willoughby, Chancellor and Jenkinson. More famous is Drayton's Ode to the Virginia voyage, with its commemoration of Hakluyt (1605.)

You brave heroic minds
Worthy your country's name,
That honour still pursue
Go, and subdue,
Whilst loitering hinds
Lurk here at home, with shame.

And checrfully at sea
Success you still entice
To get the pearl and gold
And ours to hold
Virginia
Earth's only paradise.

Thy voyages attend,
Industrious Hakluyt
Whose reading shall inflame
Men to seek fame
And much commend
To after-times thy wit.

Similarly Peele, in his *Farewell* to Drake and Norris when setting out on the expedition of 1589 for the Spanish coasts, thus addresses their followers :—

You follow Drake by sea, the Scourge of Spain,
The dreadful dragon, terror to your foes,
Victorious in his return from Inde
In all his high attempts unvanquished.
You follow noble Norris whose renown,
Won in the fertile fields of Belgia,
Spreads by the gates of Europe to the courts
Of Christian Kings and heathen potentates.

Another, and weightier tribute to a single voyage is Chapman's *De Guiana carmen epicum* (1596). It describes the golden impulse that largely moved the adventurers.

Guiana, whose rich feet are mines of gold,
Whose forehead knocks against the roof of stars,
Stands on her tip-toes at fair England looking,
Kissing her hand, bowing her mighty breast,
And every sign of all submission making
To be her sister, and the daughter both
Of our most sacred maid.

Later it breathes all the high ideals of faith and honour and devotion to the Virgin Queen which sent the flower of England's youth across the seas on quests of high endeavour.

You that herein renounce the course of earth
And lift your eyes for guidance to the stars,
That live not for yourselves, but to possess
Your honoured country of a general store ;
You that are blest with a sense of all things noble
In this attempt your complete worths redouble.

This is the spirit that informs the *Faerie Queene*. Spenser saw in the endeavours of Elizabethan administrators and soldiers in Ireland, in the fantastically heroic expeditions to Flanders and France, in the labours of wide-faring voyages against "feathered Indians" and "Mores of Malaber," a rejuvenescence of old ideals of chivalry, of which the pageantry and revived tournaments of Elizabeth's court were but the surface sparkle. It is the spirit that urged Sidney to prepare for a western voyage, and when forbidden by the personal intervention of the Queen, to volunteer for the hopeless raid into the Low Countries that for him ended at Zutphen. And yet

it is strange to see how, with all this emotional uplift which inspires the poets, there still remains, perhaps as a legacy from Horace's cockney horror (Od. I. iii), a strange dread of the sea and of all its works. Spenser, with the experience of several crossings to and from Ireland, can fill his *Faerie Queene* with images derived from sea-battered shipping, but perhaps his sincerest opinion is in *Colin Clout* (196-207)

The sea, that is
A world of waters heaped up on hie,
Rolling like mountainss in wide wildernesses,
Horrible, hideous, roaring with hoarse crie
Fearful much more, (quoth he) then hart can feare:
Thousand wyld beasts with deepe mouthes gaping direfull
Therin stil wait poore passengers to teare.
Who life doth loath, and longs death to behold,
Before he die, alreadie dead with feare,
And yet would live with heart halfe stonie cold,
Let him to sea, and he shall see it there.

With this we may parallel the very similar sentiments of Salarino (*Merchant of Venice* I. i) who can only think of "shallows and of flats," the "dangerous rocks" and "roaring waters" of the deep.

But it is not in such passages of direct reference to the sea and to those that go down to it in ships, that the real influence of the voyages on literature and thought is shown. It is only when we consider how the discoveries of the navigators, subversive of all old conceptions of empire, seemed to open a new heaven and a new earth to wondering eyes, that we can place them in true perspective. It was indeed, not till the navigators who followed in the wake of Columbus had proved that the lands discovered by him were not part of Eastern Asia, that these new conceptions came flooding like a tide into the imaginations of men. In England, the growing antagonism against Spain led to the voyages of Frobisher in search of the North-West passage. By the Papal bull of 1493 the undiscovered world was parcelled between Portugal and Spain, the former being granted all to the East, the latter all to the West, of a line drawn from pole to pole a hundred leagues West of the Azores. In 1520 both

these powers had their own road to the riches of India and Cathay, Spain by the Straits of Magellan, Portugal by the Cape of Good Hope. Thus the adventures of Frobisher had as their objective the discovery of a route that might be distinctively English, in defiance of any Papal partition. But England was too much handicapped in the race; and thus her voyagers, in theory the advance-guard of English rule, were in practice the leaders of piratical plundering expeditions against the power of two large vested interests. The fact that they were more often successful than not stimulated intensely the new national consciousness; a series of brilliant skirmishes against the might of Spain, culminating in the hounding of an Armada supposedly invincible round the shores of the North Sea, confirmed in the minds of Englishmen the growing realization that they too were inheritors of a new physical and intellectual universe.

In no department of literature is this new and fertile conception more fruitful than in drama. Early English drama, secular or religious, is a thing insular in outlook; it is partly redeemed by classic modelling, but before Marlowe, tragedy was definitely under the heel of a frozen Senecan tradition, comedy looked no further for inspiration than to Plautus and Terence. It is wonderful to observe, however, how the horizon widens after the Armada, the culmination in many ways of the earlier, more heroic voyages. Extravagant deeds of adventure, the strange wonders of new worlds retailed by returned navigators, pass into the very substance of Marlowe's work, replacing "echoes of ancient wisdom and shadows of old beauty." We pass at a stride from the twilight of classic reminiscence to the broad, crude-coloured, loud-voiced daylight of the new world. His characters are typical of the sort of mind produced by the enlarging horizons which discovery revealed, and by the new intellectual expanses laid open by the re-birth of classic knowledge and philosophy. Tamburlaine is an embodied lust for world-power, Barabbas for wealth, Faustus for intellectual

supremacy. Tamburlaine's naval policy indeed, reads like a *resume* of English voyages of trading adventure.

The galleys and the pilling brigandines
That yearly sail to the Venetian gulf
And hover in the Straits for Christian wrecks,
Shall lie at anchor in the isle Asant,
Untill the Persian fleet and men-of-war,
Sailing along the oriental sea,
Have fetched about the Indian Continent,
Even from Persepolis to Mexico
And thence unto the Straits of Jubalter,
Where they shall meet and join their force in one,
Keeping in awe the bay of Portingale,
And all the ocean by the British shore ;
And by this means I'll win the world at last.

(I Tamburlaine II. i.)

Such a passage shows how much of the appeal of Marlowe's "mighty line" lies in the resonance and magic of strange names, gathered largely from the voyages. The lure of gold which drew Spaniard and Portuguese and English alike is finely touched upon by Marlowe.

Lo, here, my sons, are all the golden mines
Inestimable drugs and precious stones,
More worth than Asia and the world beside ;
And from the Antarctic Pole eastward behold
As much more land, which never was descried,
Wherein are rocks of pearl that shine as bright
As all the lamps that beautify the sky !
And shall I die, and this unconquered ?

(II Tamburlaine V. iii.)

In their spheres, Barabbas and Faustus echo the same spirit. The former longs for "infinite riches in a little room ;" the latter, dreaming of the profits of magical studies, cries (*Doctor Faustus*, Sc. I.)

O what a world of profit and delight
Of power, of honour, of omnipotence
Is promised to the studious artisan !
All things that move between the quiet poles
Shall be at my command.
His dominion that exceeds in this
Stretcheth as far as does the mind of man.

In a direct way, also, the discoveries reacted on men's conception of the ideal life. The early renaissance, with all its enthusiasms for rediscovered classic ideas of order in the State, went back to Plato and Aristotle for political foundations. Ranke has shown how Machiavelli adapts

much of the *Politics* in his *Prince*, coloured and modified though it be by the conditions of the typical contemporary Italian city-state and despot. Sir Thomas More and Sir Thomas Elyot, the latter especially, have a Platonic basis for their ideal states; in the *Governour*, indeed, Elyot's plans for the education of a youth to take his part in the affairs of State, are directly adapted from much of Plato's scheme for the training of his guardian. But the realization that in the Americas and the South Seas were organized societies which at first blush appeared based on simple conceptions of virtue, and which seemed untouched and unspoiled by civilized vices, gave rise to the conception of the "noble savage" as the unspoilt ideal. To many, the picture brought back into reality the fabled golden age, and though in formal political theory it is hard to trace an influence, yet in poetry and literature at large, we may see how the reports brought back concerning these unsophisticated, natural men, struck contemporary imagination. Scattered through the pages of Hakluyt are many indications of these new-discovered simple virtues. In the description of the first Virginia voyage of 1584, under Philip Amadas and Arthur Barlowe, we read of the first native they met. "Captaine Philip Amadas, myselfe, [Barlowe], and others rowed to the land, whose coming this fellow attended, never making any shewe of feare or doubt. . . . After he had (as much as might) requited these benefits received, [he] departed out of our sight. The next day there came unto us in divers boates, and in one of them the King's brother, accompanied by fortie or fiftie men, very handsome and goodly people, and in their behaviour as mannerly and civill as any of Europe. . . . Being set, hee made us all signes of joy and welcome, striking on his head and his breast and afterwards on ours, to shewe wee were all one, smiling and making shewe the best he could of all love, and familiaritie. : . . And we both noted there, and you have understood since by these men, which we

brought home, that no people in the worlde cary more respect to their King, Nobilitie and Governours, than these doe." *The Discourse of the Iland Japan, and other ilands in the East Ocean* by R. Willes thus describes the Japanese : "The people are tractable, civill, wittie, courteous, without deceit, in vertue and honest conversation exceeding all other nations lately discovered, but so much standing upon their reputation, that their chiefe Idole may be thought honour. . . . They live chiefly by fishe, hearbes, and fruites, so healthfully, that they die very old. No man is ashamed there of his povertie, neither be their gentlemen therefore lesse honoured of the meaner people." In Thomas Masham's account of Raleigh's voyage to Guiana in 1596 the Caribs are thus pictured : "The people in all the lower partes of the countrey, goe naked, both men and women, being of several languages, very tractable, and ingenious, and very loving and kinde to Englishmen generally. . . . In the upper countreys they go apparelled, being, as it seemeth, of a more civill disposition." The inhabitants of the island of Barateve in the Moluccas, where Drake landed, again seemed to approach in manners, appearance and virtues, the people of the fabulous golden age. "Their island is both rich and fruitful. . . . Their fruits be divers and plentiful. . . so that to confesse a truth, since the time that we first set out from our own countrey of England, we happened upon no place (Ternate only excepted) wherein we found more comforts and better meanes of refreshing. . . . The people of this island are comely in body and stature, and of a civill behaviour, just in dealing, and courteous to strangers, whereof we had the experience sundry ways."

With many other elements of thought that filtered into Shakespeare's work from his reading of Montaigne, we find him using this idea of a golden age surviving from Plato's description of Atlantis to his own day, in the polity of new-discovered American races. Montaigne's servant, "a simple and rough-hewn fellow," had brought back

reports of his own from the new continent ; they were amplified by "divers Mariners and Merchants, whom he had knoune in that voyage." He described them as Englishmen had described the simple races of Virginia or the Moluccas. "There is ever perfect religion, perfect policies, perfect and compleat use of things . . . Meseemeth that what in those nations we see by experience, doth . . . exceed all the pictures wherewith licentious poesie hath proudly embellished the golden age, and all her quaint inventions to frame a happy condition of man. . . . It is a nation, would I answer Plato, that hath no kinde of traffike, no knowledge of letters, no intelligence of numbers, no name of magistrate, nor of politike superioritie ; no use of service, of riches or of povertie ; no contracts, no successions, no partitions, no occupation but idle ; no respect of kindred, but common, no apparell but natural, no manuring of lands, no use of wine, corne, or mettle. The very words that import lying, falshood, treason, dissimulations, covetousness, envie, detraction, and pardon, were never heard of amongst them." (*Essays of Montaigne*, tr. John Florio, 1603. I. xxx. "*Of the Caniballes*.") How this conception fascinated Shakespeare may be seen by his almost literal adaptation of this passage in Gonzalo's description of the ideal commonwealth. (*Tempest* II. i.)

I' the commonwealth I would by contraries
Execute all things ; for no kind of traffic
Would I admit ; no name of magistrate ;
Letters should not be known ; riches, poverty,
And use of service, none ; contract, succession,
Bourne, bound of land, tilth, vineyard, none ;
No use of metal, corn, or wine, or oil ;
No occupation ; all men idle, all ;
And women too, but innocent and pure ;
No sovereignty,—

* * * * *

All things in common nature should produce,
Without sweat or endeavour : treason, felony,
Sword, pike, knife, gun, or need of any engine,
Would I not have ; but nature should bring forth,
Of its own kind, all foison, all abundance,
To feed my innocent people. . . .
I would with such perfection govern
To excel the golden age.

But the effect of the voyages goes beyond literature. In the records of Hakluyt are the deeds which for half a century inflamed the emotions and kindled the imagination of a whole nation. Here was the impulse for the fantastically brilliant activities of a wonderful age, here some excuse for the almost florid celebration of them, some groundwork for the "high carelessness," the "braggart magnanimity" of the Elizabethan temper. Modern empire indeed is based upon the frequently very dull lists of commodities and technical sailing directions which in Hakluyt mingle with the golden dreams of the projectors and the vivid life of the voyagers.

In physical as in intellectual realms, a chance phrase of Master Robert Thorne, in his treatise (1527) on the North-West passage, might have been taken as the motto of the Elizabethan Englishman: *There is no land uninhabitable, nor sea innavigable.*

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RAMAZAN:

THE MOSLEM FASTING MONTH AND THE FEAST OF CHARITY.

BY A. F. M. ABDUL HAFEEZ.

THE followers of Islam all the world over have just passed through the ninth month of the Moslem year—the Ramazan. Few people outside the Mahomedan circle have any idea of the way in which this particular month of the year is observed by the men and women of that community throughout the globe. It is the most sacred, most solemn and most wonderful month in the Moslem calendar. It serves to present to the whole world an unparalleled example of great trial and fortitude the Faithful undergo by fasting within very strict rules for 30 days uninterruptedly from dawn till sunset. It is undoubtedly a most unique annual phenomenon in the life of a pious Moslem. A short account of the day's programme during this month will prove interesting to the members of other communities.

On the eve of the last day of the previous month, Moslems in small groups take up their position on terraces, lawns, and every other possible place of vantage, and vie with each other in discovering the “moon”—apparently evincing a passing interest in the astronomy of the evening, and countless anxious eyes are levelled at the firmament. A cloudy sky often mars the pleasant hopes of the earnest gazers and mercilessly unhinges the happy prospect of the first fast. If the moon is visible, fasting duly commences from the next morning, which means perfect abstinence from food and drink during the whole day. It begins with the rising and ends with the setting of the sun. In many Moslem states and countries the

appearance is immediately announced by the firing of guns. In many places guns are fired both in the morning and in the evening for thirty days to indicate the beginning and the end of the fasting hour. This is very useful and something absolutely necessary to those who possess no watch to consult the time, especially on a cloudy evening. Fasting does not at all interfere with the daily avocations of the Moslems and no programme of the day's duties is disturbed. Although the man goes without food, fasting and work go together.

The beauty of keeping the fast lies in the breaking of it. The process of breaking the fast is so elaborate that a man forgets the strain of the day. With the approach of the long-looked-for moment and the prospect of a square meal, these patient souls naturally seem to be infused with joy and vigour and sit round an array of varied dishes. The supreme moment has at last arrived and the fast is broken. This is ordinarily done with syrup or water, followed by an elaborate display of fruits and other dainties of various kinds and colours which are freely requisitioned for the purpose. This is called *Iftari*. The mosques are naturally the centres of attraction on these occasions and present a scene of great animation towards the approach of the evening. Refreshments, consisting chiefly of fruits, are sent out in large quantities from the neighbouring families to the mosques of their own localities in addition to those that are supplied by the mosque fund. The poor also contribute their quota according to their means. The sight at the two great mosques of Calcutta—in Lower Chitpore Road, and at the Esplanade Junction—about 6 p.m. is worth witnessing, where hundreds of Moslems gather together to break the fast and to say their evening prayers.

After the fast is broken, full justice is done to the dinner. By 8 o'clock the devotees flock towards the mosques, where they have to perform their special prayer, called *Taraweeh*, in which the whole of the thirty chapters

of the Holy Koran is recited. This is generally accomplished in from one week to twenty-nine days according to the arrangements made by the managers. Although strictly according to Mahomedan Law it is not lawful to accept any remuneration for the performance of this duty, yet these injunctions are not practically adhered to, and fees on different scales are offered and taken. There have been instances where the whole Koran has been recited from memory in one night, extending over 7 or 8 hours only, by one man in one posture and in one stretch. The last night of the recitation is made an occasion of some ceremony. The mosques are beautifully illuminated and the congregation is comparatively large. After the prayers sweetmeats are freely distributed to those present. The Imam or Priest who leads the prayer is handsomely remunerated on these occasions. Prayers over, they take some rest, and after a hurried nap, they get up again at about 2 A.M. and partake of some food called *Sahari*, preparatory to the fasting of the following day. This unusual hour of the meal during the inconvenient small hours of the morning generally lends a peculiar charm to the whole thing. The Ramazan of Mecca and Medina—the two great centres of Islam—have been described as scenes of unparalleled splendour.

The word Ramazan is derived from *Ramx* (which means to *burn*) and signifies that it burns all the sins of the Moslems. The great principle which underlies the apparent process of harmful hunger teaches a noble lesson of patience, endurance, humility and fortitude. The Prophet used to pray so much during this month that his feet often swelled under him. The real significance of fasting is not simply to abstain from food—for in that case a famished beggar will certainly give points to a rich man. It is rather intended to be a sort of spiritual remedy for the diseases of the soul. There is a fine line of demarcation between fasting and starving. If it does not improve and purify the soul, it is nothing better than starvation.

It illumines the dark regions of our heart and teaches the cultivation of angelic qualities. Some people believe only in physical fasting. They fast with their body but not with their soul. To them it brings nothing but hunger. To a true Moslem the days of Ramazan are the Days of Divine Blessings. It was during this month that the Koran was revealed to the Prophet. It embraces various other virtues from a medical point of view. "Fast cure" in Europe is probably based on this principle. The trials of scorching May and June in India are sometimes worth recording.

The above account represents the routine of the 24 hours of the day, which is repeated for 30 days, according to the appearance of the next moon. Quite in the fitness of things, the close of the month is celebrated by the happy advent of the greatest festival of the Mahomedan community called the "Id." On that auspicious day the fast is broken for the last time as it were early in the morning. The Moslems in their gala dress adjourn to the mosques where the Imam or the leader of the congregation after the special prayer addresses the assembly and dwells in pathetic terms on virtues and beauties of the outgoing month and deploras the departure of Ramazan. The service this time included a special prayer for the success of the British Arms. The responses were made with much fervour and religious enthusiasm. At the close of the prayers the Moslems exchanged the customary greetings and good wishes and the day was spent in feasting and general rejoicings. Alms are distributed to the destitute with a free hand.

A. F. M. ABDUL HAFEEZ.

PROPOSED LEGISLATION FOR THE PROTECTION OF CHILDREN.

BY CAPTAIN W. J. CLIFFORD.

THE first effort to secure such legislation as is now proposed was made by the S. P. C. I. as far back as 1903. That effort was unsuccessful so far as obtaining legislation is concerned but it brought out the fact that the Government of Bengal considered the traffic in minor girls to be very serious and widespread and an expression of its desire to see well considered steps taken by the Government of India to secure more effective protection for children in such cases, and, secondly, the opinion of the Government of India that the provisions of the existing law were inadequate for the purpose of dealing with the evil against which the representation was directed. The immediate result obtained was a more searching and systematic surveillance over persons engaged in immoral callings.

As pointed out, however, by the Hon'ble Mr. Dadabhoy, the executive vigilance upon which Government relied produced no results. The ranks of prostitution continued to swell, minor girls remained as unprotected as before.

Taking advantage of the opportunity afforded by the proposal to amend the Calcutta Police Act, the S. P. C. I. memorialized the Government of Bengal and again prayed for protective legislation for these unfortunate children. Hopes were entertained that some measure of relief would be obtained as a special Committee of Enquiry was appointed. This Committee admitted that the allegations were correct both in substance and fact and supported the Memorialists' prayer.

The reply to the Memorial was that as there was no evidence to indicate widespread and genuine desire among the Indian communities in Bengal for such legislation it was undesirable to take action in the matter and until the Indian community itself moved legislation could hardly be proceeded with.

Matters thus remained till 1912 when the Hon'ble Mr. Dadabhoy definitely expressed Indian desire in the matter by bringing forward a comprehensive Bill on the subject.

Eight non-official members, practically representing Indian opinion in all parts of India, spoke to the measure. One and all expressed their gratitude that such a measure was brought forward, and speaking on behalf of their countrymen offered their heartiest support to any legislation that might eventually be framed.

Replying on behalf of Government Sir Reginald Craddock explained why new legislation had not been earlier undertaken by Government and pointed out the course Government proposed following in the matter.

Briefly put, it was that Mr. Dadabhoy's Bill would be sent out in the usual way to local Governments and with it would be communicated such amendments to the existing law as the Governments were themselves prepared to endorse. Some further additions and changes in the law for which *prima facie* public opinion appeared to be ripe would also be included.

He then went on to detail and explain the various proposals Government intended laying before local Governments and the public. He also foreshadowed that if the result of the submission of Mr. Dadabhoy's Bill to local Governments and to public criticism went to show that certain amendments of the Criminal Law were expedient and feasible it might be the preferable course for Government to introduce a measure of its own.

Well, the proposals were submitted to local Governments and to public criticism, replies were received in

due course and on the 17th September 1913 Sir Reginald Craddock introduced a Government Bill further to amend the Indian Penal Code and the Code of Criminal Procedure.

In accordance with usual practice the Bill was published in all local Gazettes and opinions and criticisms invited. On receipt of these the question was remitted to a Select Committee, and as considerable alterations and modifications have been made to the Bill, the matter is once again submitted for public criticism.

Up to this point I have intentionally restricted my remarks to a general history of the Bill. It is now time to enter into details.

As we have to deal with a Government Bill and the modifications proposed to it by a Select Committee it will not be necessary to enter into any details regarding the original Bill brought forward by the Hon'ble Mr. Dadabhoy but the public owe him a large debt of gratitude for his initiative in this important matter. I should like to take this opportunity of acknowledging that debt.

The immediate object of the Bill framed by Government is to secure greater protection for women and children, to save them from a life of infamy, and the method of securing this result is by strengthening the law, safeguarding minor girls and affording some facilities for the rescue of children from undesirable surroundings.

To be precise the proposed legislation consist of

- (i) An alteration in the wording of Sections 372 and 373 Indian Penal Code.
- (ii) The addition of certain explanations to these sections.
- (iii) The substitution of 16 years for 14 years in Section 552 Criminal Procedure Code.
- (vi) The addition of three new sections to the Criminal Procedure Code to be numbered 552A, 552B, 552C,

The object of altering the wording in Sections 372 and 373 is to prevent guilty parties escaping through the loopholes the present wording offers.

Explanation I to Section 372 and the explanation to Section 373 throw the onus of proving innocent intention on the accused person in the case where the giver of the child has handed her over to a common prostitute or where the receiver is herself a common prostitute.

Explanation II to Section 372 furnishes a definition of the term "illicit sexual intercourse" as used in the amended wording. The definition has been worded to protect unions which though they might not rank as legal marriages at the same time are recognized as unions by the classes among which they obtain and do not necessarily involve any slur of immorality or sexual degradation.

The amendment of Section 552 merely has the effect of transferring girls of the ages of 14 and 15 from the category of women to that of children. Girls of these ages who had been abducted or detained for any unlawful purpose could, under the existing section, be set at liberty by the order of a Presidency or District Magistrate. Under the law as amended they will rank as children, who can be restored to husbands, parents, or guardians, or other persons having lawful charge of them.

Of the three new sections, 552A is the most important as it gives a Presidency or District Magistrate power to remove a female child from the company of a prostitute or from a brothel, or from any place where the circumstances are such as to favour the seduction or prostitution of the child. But the removal is conditional on the Magistrate being able to make suitable provision for the custody of the child, and he is enjoined by the law to give preference to a co-religionist of the child, if suitable custody can be guaranteed.

Section 552B deals with the maintenance of the rescued child, and would enable a Magistrate to recover from unnatural relatives of a child whom they had consigned

to a life of prostitution, a suitable contribution to be paid to the person who had taken custody of the child under the Magistrate's order.

Section 552C protects the custodian of the child from being molested by litigation; the only exception being when a guardian of the child is subsequently duly appointed by a competent Civil Court.

From what I have just said you will at once see that the new legislation divides itself into two parts; that which affects the Indian Penal Code, that which affects the Criminal Procedure Code. Let us first deal with the Indian Penal Code.

Section 372, as it at present stands, reads as follows :—Whoever sells, lets to hire, or otherwise disposes of any minor under the age of 16 years, with intent that such minor shall be employed or used for the purpose of prostitution or for any unlawful and immoral purpose, or knowing it to be likely that such minor will be employed or used for any such purpose, shall be punished with imprisonment of either description for a term which may extend to ten years and shall also be liable to fine.

The Government Bill proposed to substitute the following :—Whoever sells, lets to hire, or otherwise disposes of any minor under the age of 16 years, with intent that such minor shall, at any age, be employed or used for the purpose of prostitution or illicit sexual intercourse, with any person or for any unlawful and immoral purpose, or knowing it to be likely that such minor, at any age, will be employed or used for any such purpose shall be punished, etc., etc.

The Select Committee have approved of the following :—Whoever sells, lets to hire, or otherwise disposes of any person under the age of 16 years, with intent that such person shall, at any age, be employed or used for the purpose of prostitution or illicit intercourse with any person, or for any unlawful and immoral purpose,

or knowing it to be likely that such person at any age will be employed, etc., etc.

The modification of the Select Committee calls for no remark.

The next Government proposal was the addition of two explanations to 372.

They read as follows :—

Explanation I.—When a minor female under the age of 16 years is sold, let for hire, or otherwise disposed of to a common prostitute, the person so disposing of such minor shall, until the contrary is proved, be deemed to have disposed of such minor with the intent mentioned in this section.

The Select Committee modifies this thus :—

Explanation I.—When a female under the age of 16 years is sold, let for hire, or otherwise disposed of to a prostitute or to any person who keeps or manages a brothel the person so disposing of such female shall, until the contrary is proved, be presumed to have disposed of her with the intent that she shall be used for the purpose of prostitution.

This also calls for no remark.

Explanation II.—Illicit sexual intercourse means sexual intercourse not sanctioned by law or custom.

The Select Committee propose the following in lieu :

Explanation II.—For the purpose of this section and Section 373 illicit intercourse means sexual intercourse between persons not united in marriage or bound by any union or tie which, though not amounting to a marriage, is recognized as lawful by their personal law.

This second explanation has been redrafted with the object of avoiding some of the objections which were urged to the definition of illicit intercourse in the original Bill. It was alleged that the exception of all sexual intercourse sanctioned by law or custom was too wide, and that it was

not necessary to go beyond the idea of unions or ties, which, though not amounting to marriages, were recognized as lawful by the personal law of those concerned.

The Government Bill proposed the following explanation to Section 373 :—

Explanation.—Any common prostitute who buys, hires, or otherwise obtains possession of a minor female under the age of 16 years shall, until the contrary is proved, be deemed to have obtained possession of such minor with the intent mentioned in this section.

The Select Committee suggest this :—

Explanation.—Any prostitute or any person keeping or managing a brothel who buys, hires, or otherwise obtains possession of a female under the age of 16 years shall, until the contrary is proved, be presumed to have obtained possession of such female with the intent that she shall be used for the purpose of prostitution.

No remark seems necessary with regard to this amendment.

This completes the new legislation so far as it affects the I.P.C. But it is a matter for consideration whether two other proposals which were discussed in Select Committee though not embodied in the Bill, either as originally drafted or as amended in Select Committee, should not be now recommended for inclusion.

These two proposals are :—

- (a) That intercourse outside the marital relationship with a girl between the ages of 12 and 14, with or without her consent, should be made a criminal offence.
- (b) That a new section should be inserted in the I.P.C. penalizing intercourse with a girl under the age of 16, known to have been disposed of or obtained with one of the intentions specified in Sections 372 and 373.

Both these proposals seem to be not only reasonable but desirable, whether viewed from moral, physical or medical standpoints, for we must remember that though there is more rapid development in tropical climates the classes most affected by this legislation will be the lower and lowest orders and amongst them development is not so rapid as is generally assumed, owing to the straitened conditions under which they ordinarily live.

With regard to the second proposal neither the existing nor the amended law now under consideration make any provision for dealing with those who, though not engaged in the traffic of minor girls, yet know them to have been the subject of such traffic.

We now come to the clauses of the Bill affecting the Code of Criminal Procedure.

The first change suggested is the alteration of age given in Section 552 from 14 years to 16. The amendment to this section merely has the effect of transferring girls of the ages of 14 and 15 from the category of women to that of children. Girls of these ages who had been abducted or detained for any unlawful purpose could under the existing section be set at liberty by the order of a Presidency or District Magistrate. Under the law as amended they will rank as children who can be restored to husbands, parents, or guardians, or other persons having lawful charge of them.

The amendment is desirable and has been accepted by the Select Committee.

This brings me to those clauses of the Government Bill which have been discussed at great length in Select Committee.

Before entering into detailed wording of these clauses let me give a brief explanation of their scope.

Section 552A gave a Presidency or District Magistrate power to remove a female child from the company of a prostitute or from a brothel or from any place where the circumstances were such as to favour the seduction or

prostitution of the child. But the removal was to be conditional on the Magistrate being able to make suitable provision for the custody of the child and he was enjoined by law to give preference to a co-religionist of the child if suitable custody could be guaranteed.

Section 552B dealt with the maintenance of the rescued child and gave the Magistrate power to recover from unnatural relatives of a child whom they had consigned to a life of prostitution, a suitable contribution to be paid to the person who had taken custody of the child under the Magistrate's orders.

Section 552C protected the custodian of the child from being molested by litigation, the only exception being when the guardian of the child was subsequently duly appointed by a competent Civil Court.

This brings me to those clauses of the Bill which have been discussed at such great length in Select Committee. So many changes have been made in the draft Bill that it will not be possible to discuss all of them. Under the original a Magistrate could take initial action for the rescue of a girl upon receiving a complaint on oath, or upon his own knowledge or suspicion and after due enquiry could make an order removing the child from the custody of the person with whom she was living and commit her to other and suitable custody until she attained the age of majority but in considering to what custody the child should be committed the Magistrate was enjoined to give preference to a person of the same religion as the child. Such initial action could be taken not only if the child was residing in a place used by a prostitute but also if it was living in circumstances calculated to cause, encourage or favour the child's seduction.

• Under the Select Committee's proposals a competent Magistrate can only act upon information on oath and after hearing and recording evidence, if the child is in danger of prostitution, he may make the child over to a suitable custodian provided one can be found of the same

faith, and then only until the girl attains the age of 16 years. If no one of the same faith can be found the girl must be relegated back to the surroundings from which she was taken.

The amended Bill makes no provision for the case of a child whose religion is not known.

The Select Committee's clauses retain the proviso which also found a place in the original Bill, *viz.*, that a female shall not be treated as coming within the scope of the Bill if the only prostitute whose company she frequents is her mother and the Magistrate is satisfied that the mother exercises due care and supervision to protect her from physical and moral contamination.

The Select Committee's proposals also permit of a parent or person having lawful charge of a female executing a bond to the satisfaction of a Magistrate engaging that he will exercise due care and supervision to protect such female from physical and moral contamination in lieu of the child's removal from his custody.

I have given you first a general history of the endeavours that have for the past 11 years been made to secure legislation to put down the ever-increasing traffic in girls for immoral purposes and then a detailed account of the Bill in which these efforts have culminated. From first to last it has been a pure humanitarian effort, not so much to punish offenders against morality as to rescue young girls from lives of infamy, and to preserve the purity of young lives. Government action has not been hasty or inconsiderate ; due care has been taken to safeguard religious interests, though the Bill is in no sense a religious measure.

W. J. CLIFFORD.

Calcutta.

REVIEWS OF BOOKS.

REFLECTIONS ON THE PROBLEMS OF INDIA.—

By A. S. N. Wadia. (J. M. Dent and Sons.)

Mr. Wadia is refreshingly reactionary amongst Indian writers. He sets himself to stem the tide of current political opinion and is uncompromisingly severe in his criticism of ideals which are at the present time popular amongst his countrymen. He has the courage of his convictions, and, with his vigorous style and considerable command of forcible language, he is well equipped for the accomplishment of his aim—which is to “assist his countrymen to clear their minds of cant.” The fact that we cannot agree with the majority of his conclusions does not diminish our admiration for the impressiveness of his arguments. Mr. Wadia deals with four topics in this volume—*Elementary Education*, the *Caste System*, *Industrial Development* and the *Political Future*, and in every case he sets himself to analyse the meaning and estimate the value of the current political catchwords. In regard to the first topic he somewhat proudly claims to belong to the class of those who do not admit either the necessity or the value of mass education. He does not base his argument on the plea that conditions in India are different from those in Britain, but he boldly questions the value of the experiment of compulsory education in itself. He points out that the Education Acts in Britain have not accomplished what was expected of them. He contends that the intellectual level of the community is decidedly lower now than it was in 1870, and that the expectation that education will be a panacea for all evils is based upon “the most fatal postulate of equality.” Under the influence of Carlyle and Nietzsche he favours the domination of the natural hero, and, under the influence of the latter rather than the former, he argues that knowledge and ignorance, good and evil, are bound to alternate. Evolution must always presuppose involution. You cannot bring more out of a man than is in him, or—in the words of the homely proverb which our author is very fond of quoting—“You cannot make

a silk purse out of a sow's ear." "By an irrevocable ordinance the mental rank of a prince or a peasant is fixed from the hour he was born," and the effect of primary education is simply to make the lower classes discontented with the position to which they naturally belong. He forgets, however, to consider the question whether under the present constitution of Indian Society, mental rank always coincides with social rank and he pays no attention to the demands for equality of *opportunity*. These great omissions considerably detract from the validity of his sweeping conclusion that "our efforts for the promotion of human welfare through universal Mass Education will turn out after all to be no better than the mere ploughing of the sands of the seashore."

In much the same spirit Mr. Wadia tackles the problem of the Caste system. He somewhat illegitimately calls science to his aid and argues for the transmission of mental properties from one generation to another of the favoured castes. The dominance of the Brahmins is justified by the principle of heredity and the influence of environment and opportunity is as nothing compared to the influence of inherited characteristics. We cannot, however, agree that the superiority of the latter influence to the former has been conclusively proved, and the cynical references to the efforts of missionaries to raise the depressed classes, coupled with the assertion that to claim equality between a Mahar and a Brahmin, Parsi, or Rajput is the very height of insolence, tempt us to the opinion that our author is not sufficiently free from the dominance of the caste spirit to be able to take an unprejudiced view of the situation. We own to a somewhat greater degree of sympathy with Mr. Wadia's diatribes against the popular cry for industrial development. There is a considerable amount of truth in his description of the depressing conditions of life in the chawls of Bombay and the industrial districts of England, and there is a good deal to be said for the contention that the introduction of machinery, with its consequent minute division of labour, has lessened the interest of the workman in his work and thus diminished the sum of human happiness. The life of the agricultural labourer compares, in many respects, favourably with that of the factory hand, and many will sympathize with our author's protest against the crushing out by machinery of those handicrafts which evoke the sense of individual responsibility and are at the same time the source of pleasure to

the worker. The longest essay, and the only constructive essay in the book is devoted to the problem of the political future of India. True to his customary method Mr. Wadia first of all subjects to rigorous criticism certain contentions of Mr. H. P. Mody, the gifted author of the *Political Future of India*, to the effect that the conditions of political unity already exist in India. Mr. Wadia argues that there is no real unity of race and that the British are no more alien to the peoples of India than many of these peoples are to one another. Religious toleration is dependent on the firm control of the British Government, and, were that control withdrawn, Hindus and Mohammedans would be immediately in conflict. He is somewhat unduly mistrustful of the unifying power of the English language, and his contentions that even in the West this language is being ousted by local vernaculars is based upon statements which call for somewhat fuller investigation. We are not aware, e.g., that "in Scotland an agitation has been started for the teaching of the native language in the lower schools instead of English." Mr. Wadia would do well to revise, to some extent, his knowledge of what is meant by "the native language of Scotland." In brief the contention of our author regarding the political situation is that the salvation of India lies in the continuance of British rule. The British are naturally fitted for the governance and management of men, and it is for the good of India that they should be given their opportunity. Mr. Wadia is extremely sceptical as to the value of representative government in any country, and holds that it is particularly unsuitable for India. He holds, further, that the form of government which is suitable even though not desirable for the self-governing colonies of the Empire, would be entirely out of place in India with its burden of tradition and its anti-democratic organization of society. He pleads with the Indian political leaders to abandon the impossible ideal of self-government on colonial lines and allow the formation of a party which he wishes to call by the descriptive title of the "Independent Pro-British Party." The creed of this party would include the permanent maintenance of British rule in India, the removal of invidious distinctions between Indians and Europeans, the employment of as many Indians as possible in the Public Service, consistently with the maintenance of its tone and traditions, and, finally, the devolution on local governments of as many functions as can safely be

entrusted to them. Mr. Wadia's remarks on the second of these points have no great degree of originality but they are worthy of exceedingly careful consideration, coming as they do from one who is so enthusiastic a supporter of British rule. In particular, attention should be paid to his observations upon the damaging influence of the station club and the prevalence of the disease which he calls "Poona-itis"—and which others might call "Simla-itis." The symptoms of this disease are an excessive devotion to gymkhanas, picnics and dances and a restless expectation of furlough, and the ravages of the disease are not diminishing. In regard to the fourth article in his suggested political creed—the devolution of responsibility upon local governments—Mr. Wadia's remarks are very much to the point and form a suitable conclusion to a book which is quite worthy of publication. One minor criticism may be allowed. The get-up of the book is much too sumptuous and would be more suitable for a collection of *belles lettres* than for a serious political essay. We hope that in a future edition—an honour which this book abundantly merits—this defect will be remedied.

W. S. U.

THE PRINCIPLES OF TANTRA.—The Tantratattva of Shri Shiva Chandra Bhattacharyya. Edited with Introduction and Commentary by Arthur Avalon. (Lusac and Co.)

Mr. Avalon has here presented the translation of an exposition of Tantric doctrine, made some twenty years ago in the hope of bringing back the faithful to the faith. This exposition, which was originally written in Bengali and has been translated mainly by Mr. Jnanendra Lal Majumdar, takes the view that the *Tantra* is essentially the scripture of the Kali age just as the Puranas are the scriptures of the Dwapara age and the Vedas of the Satya age. The current want of interest in Hindu ways of thought and of action is due to neglect of this Tantra scripture, and this neglect again is a consequence of over-emphasis upon unimportant precepts, mistranslation of certain phrases and general misunderstanding. The expounder is a pronounced ritualist. He rebukes those who, as if

they were "suffering from constitutional fear," tremble at the very mention of rules of practise. He points to the universal need for ritual, and meets the objection of those who say that ritual belongs to a lower level and may be discarded. To such as in this way make use of the verse "For him who has faith in the root, of what use are the branches and leaves," the defender of the shastra replies that the higher knowledge is not the ordinary faculty of a working consciousness but is a possession of a much less frequent attainment and therefore should not be lightly assumed. Besides, contemplation alone tend to excessive trust in the disputations of pundits which can be likened to the "cawing of crows," and the result of meditation upon a "misty nothing" is vanity of heart and mind. Thus the way of ritual action is all important, and we must not think it necessary or even possible that faith should precede works. This precedence is not possible for there are many hidden and obscure mysteries about Tantric worship; it is not necessary, for if Sadhana is sincerely performed, faith will follow it as a matter of course. An interesting aspect of the Tantric teaching is emphasized by Mr. Avalon in his admirable introduction. He points out that the world does not, as in the Vedanta, "intervene as though it were an obstacle hard to surmount between man and God and set to frighten us. It is the wealth of the Shakti of Visveshvari, which it reveals." If such a passage as this is a true description it would reveal a distinct tendency in Indian thought development from a negative to a positive direction. Mr. Avalon protests against the inadequate appreciation of Tantric literature which is shown in the writings of Ward, H. H. Wilson and Brian Hodgson. He shows that so little is known of the Tantras that generalizations in regard to them are apt to be hazardous; and it is to be noticed that he brings the accusation of ignorance against both Indian and European commentators. At the same time, though he points the way to many elevated ideas, he does not show that these accusations of mummery and superstition are altogether without foundation, and we are always inclined to be a little doubtful of a system which prides itself on its esoteric character and in regard to which we are told that "the key to the method has been with the initiate." If the defenders of any doctrine wish to win credence for their faith, they must be willing to bring forth their proofs into the broad light of day.

THE GREAT TEACHERS.—By G. Herbert Whyte.
(Theosophical Publishing House.)

This is a collection of simply written, and in some cases beautifully written, accounts of the lives of Gautama Buddha, Krishna, Mohammed and Christ. The presentation of Buddha seems to be the fairest and the most accurate. Krishna is portrayed in much more pleasing form than that in which the ancient Indian books allow us to imagine him, and his personality becomes a somewhat vague point of attachment for various attractive legends. Authors of publications of this kind seem to be unable to avoid misrepresentations of Christianity. It would be difficult to find a more grotesque travesty of the facts of Biblical criticism than is given us in the story of the life of Christ which is included in this book. It is asserted that Jesus was born 100 years before the time usually assigned, and that, after his visit to the temple at the age of twelve, he was sent to a community of Essenes in the Judæan desert. At the age of 19 he was transferred to another monastery of the same sect, and in this monastery he would have opportunity for coming into contact with the wisdom of the East. We do not get the slightest hint that these statements are without historical foundation. The account of the writing of the Gospels is equally imaginative. We are told with the utmost seriousness that a certain monk named Matthaëus, who lived in a monastery to the south of Palestine, wrote a story into which he wove some incidents from the life of the Lord. He then sent this story to a friend who was Abbot of a huge monastery in Alexandria and who caused several versions to be made. Four of these versions survive and are known by the names of the monks (*sic*) who wrote them—Matthew, Mark, Luke and John! It is a great pity that the occasionally beautiful teaching of the book before us should be marred by association with childish tales of this sort, which can find credence only amongst the utterly ignorant.

MUKUNDRAM AND OTHER PAPERS.—By J. N. Das Gupta.

The versatile professor of the Presidency College, Calcutta, is strongly of opinion that the vernacular poetry of India deserves more consideration by historians than it has yet received. He resents the charge that there is no

historical verse in Indian literature and he has certainly made strenuous efforts to render the charge baseless. In the papers before us he has turned his attention mainly to sixteenth century and tries to frame a picture of the time out of materials derived especially from the poetical work of Mukundram whom he regards as "the Crabb of Bengali literature and the Chaucer amongst Indian storytellers." He draws some interesting parallels between the state of society in the West and in the East during the period of which he treats. It was a time of renaissance in Bengal as well as in Europe, and the copious Vaishnab literature is a lasting memorial of the mental activity in the former country. Mr. Das Gupta has begun work upon a most interesting field of historical investigation. We believe that his results are soon to be made available in completer form and we look forward to the publication with interest.

PENNEL OF THE AFGHAN FRONTIER.—By Alice M. Pennel, M. B., B. S. (Lond.), with an introduction by Field-Marshal Earl Roberts, V. C., K. G. (London : Seeley, Service and Co., Ltd. 1914.)

There may be a good deal of truth in the complaint about the books on India that so many of them are ill-informed or deal with matters that refer only to the surface of life in this great land, but here we have a volume not only well-informed, but full of adventure, and dealing with things that go to the very centre of thinking and living. The introduction by Lord Roberts gives the outstanding facts of this brave, pure, heroic life, and in one or two sentences calls attention to its magnetism. The author of the biography, so soon left a widow, has given the story of the strenuous years as a medical missionary at Bannu much more fully. There is at times repetition, but that can be pardoned when one remembers that Pennel was a pioneer, and that in work entirely beyond the comprehension of the cruel and treacherous people among whom his mother and he settled. It took years of patient medical work before the people could even dimly realize the character of the man who had settled in their midst, how much more understand the Gospel that he preached. He found it possible to add the work of a schoolmaster to that of a doctor, and probably along that line he did his most enduring work. There are many excellent books about the tribes on our North-Western Frontier written by men of

wide experience in administration, war and sport, but in showing these people as they are in daily life, this book easily holds its own. To civilize and rule them must ever be almost as difficult a task as to bring home the Gospel to them. Pennel enjoyed life at Bannu, enjoyed it as few persons could, but the area of his influence was much wider. Into wilder and even more dangerous places he pressed and sought to settle his medical assistants. His chief troubles arose, not from danger to himself, but to them, and especially the constant temptation to them to fall back into non-Christian living. His experience, however, in this respect was not very different from what is met with all over India. Two great adventures must be noted—his pilgrimage through North India and his conducting a team of his schoolboys through a great part of the peninsula to take part in sports of different kinds. In another man's hands this expedition with the boys would have been a failure, in his it was just saved. The story of his journey as a Christian Sadhu is both interesting and instructive. It may be that his opinions with regard to his fellow missionaries may not all be valuable, for of course he judged them by his own standard, and for many that was an impossible one; but his thorough knowledge of both language and people make these chapters valuable reading. He died as he had lived, thinking only of others. He operated on a colleague for septic poisoning, was infected, and died on 21st March 1912 at the age of forty-four. His great influence increased to the last, and it is just cause for pride that one of England's bravest sons should have so powerfully influenced for good, along the ways of peace, this wild neighbourhood.

J. W.

TRUTHS ABOUT INDIA.—Published by the East India Association, Westminster Chambers, 3 Victoria Street, S. W., London.

This is a reprint of leaflets issued by the East India Association from 1909 to 1913 concerning Indian administration and the financial measures passed by the Government of India and their effect on the general welfare of the people. The book is prefaced by J. B. Pennington, Esq., and J. Pollen, Esq., and the Right Hon'ble Lord Amphill, G. C. S. I., G. C. I. E., writes a short introduction to it—names which surely stand as sureties for the absolute

accuracy of the statements contained in it. The aim of the publication of these leaflets in a collected form is stated in the foreword as follows :—“ If India is really to be governed by the British Parliament, it is of course essential that the Members of that Parliament should be correctly informed about Indian affairs ;” it is thought that “ the cheap pamphlet,” like the book under review, “ is the only obvious means of disseminating the necessary information.” Widespread ignorance of Indian administration is, more often than not, a fruitful source of many an adverse criticism hurled against even the wisest methods of the Government, and the East India Association—a body which is essentially non-official in character—should be congratulated on having undertaken the difficult task of disabusing the British public mind of many false ideas concerning matters Indian. The leaflets collected here cover a very wide field, and the political and economic questions (such as “ the drain of India’s wealth into Great Britain and the consequent poverty of the Indian people,” “ Is India misgoverned ? ” “ Co-operative Banks,” etc.) over which hot controversies have taken place, are discussed here in a concise manner and with admirable lucidity. The language is simple and the arguments are of the nature of the “ soft answer which turneth away wrath.” Books of this kind are highly welcome and valuable, inasmuch as they give us some insight into the internal administration of the country and serve to strengthen the happy bond of union between the rulers and the ruled, and ensure a hearty co-operation on both sides to advance the prosperity and happiness of the Indian people.

K. D. C.

MORAL EXTRACTS FROM ZOROASTRIAN BOOKS. By Jivanji Jamshedji Modi, B. A., Ph. D.

Printed at the British India Press, Mazagon, Bombay.

This book, as its title indicates, is an attempt to present in a well-arranged form a fairly good collection of moral precepts and sayings from Zoroastrian literature (translated in English) for the use of teachers giving moral instruction to young boys in the Bombay Presidency. The selection of the extracts appears to be judicious for they cover the various relations in which the life of a young learner may be cast—his obligations to himself, his duties to his family, to his teacher at school, to the state of

which he is a citizen, to his fellowmen in society and finally, his obedience to God. The Hon'ble Mr. R. E. Enthoven, I. C. S., C. I. E., writes a short introduction to these extracts and they are likely to be of use to those for whom they are intended.

K. D. C.

CHITRA.—By Rabindranath Tagore. (Messrs. Macmillan and Co.)

This is a play in one act, written originally in Bengali and designed for acting without scenery, probably in the open air, the actors being surrounded by the audience as a note tells us. The characters are both gods and mortals, but the purpose of the play is to set forth a picture of perfected human love passing from the sensuous into the highest spiritual stages, exchanging its devotion to physical beauty for a passionate search for the invisible beauty of the soul. Chitra, the ill-favoured but noble and courageous princess, meets and falls in love with Arjuna, the hero of the *Mahabharata*. Being without personal charms or attractions she begs of the god of love a beautiful but temporary disguise. Thus transformed she wins the love of the hero, and for a year they enjoy uninterrupted and unreflecting bliss. Toward the close of the year Arjuna begins to betray signs of satiety and to long for his old strenuous life. His imagination is fired by hearing of the brave deeds of Chitra, the boyish princess. He is ignorant that his wife is Chitra in disguise. Hearing him praise her former self Chitra is encouraged to reveal the truth to him and cast aside her beauty, trusting to the stronger spiritual bond that has been forged in the fire of their love. The theme has a setting of Oriental richness that is almost oppressive, but this seems to be of design and in the end the lovers desire to shake off "this voluptuous softness, this timid bloom of beauty shrinking from the rude and healthy touch of the world" and escape "out from this slumberous prison of green gloom, this dark dense cover of perfumed intoxication choking breath." The language has that subtle and delicate charm which we have come to look for in Dr. Tagore's translations, though one misses the whimsical and playful touch that distinguishes his Bengali style and is so reminiscent in its graceful lightness of the French of Anatole France and Daudet.

M. M. U.

THE KING OF THE DARK CHAMBER.—By
Rabindranath Tagore. (Messrs. Macmillan and Co.)

This is an allegorical drama in which the invisible King and the belief or scepticism with regard to him of his courtiers and subjects symbolise the attitude of different souls to the unseen God and the approach to him of differing souls. It is a poetical study of the psychology of faith and shows unerring insight into the attitude and development of certain distinct types of faithless and believing spirits. The allegory has a lightness and almost playfulness that at first conceal the graver significance of the play and puzzle the reader who is not forewarned as to the character of the poem. The deepest religious questions are put into the mouths of the rollicking citizens who are taking part in a festival, in somewhat the same manner as Bunyan's Pilgrims and various fellow travellers discuss the celestial city and its King. A broad human sympathy like Bunyan's is revealed in this allegory also and the book will contribute a distinctly new element to Dr. Tagore's fame among English readers.

M. M. U.

**A HANDBOOK OF ENGLISH FOR JUNIOR AND
INTERMEDIATE CLASSES.**—By D. B. Nicolson,
M. A. 104 pages, 1s. 6d. net. (Cambridge University
Press.)

The writer of this handbook has succeeded to a wonderful degree in combining comprehensiveness, suggestiveness and brevity. It is obvious throughout that the writer is both a good and experienced teacher and a true lover of the English language—a purist without being a pedant. The book is constructed according to psychological rather than logical principles, the aim being “suggestion rather than exhaustion.” There is an excellent chapter on “Common Sources of Error”—a nail which Mr. Nicolson hits on the head with a precision which one seldom finds in handbooks. He gives the Scottish youth a timely lesson on the difference between “Shall you” and “Will you.” In an equally excellent chapter on “Choice of Words” he points out that there are certain colloquialisms—such as “different to”—peculiar to England. The chapter on “Style” is very suggestive. Addison, Froude, Macaulay and Thackeray are recommended as models. Well-chosen exercises are

appended to each section of the book. The brevity, comprehensiveness and lucidity of the whole work, together with the writer's delicate sense of what constitutes good English, make the book thoroughly suitable for use in Indian schools and colleges.

W. D.

THE MAN OF GENIUS.—By Hermann Turck, Ph. D.
(A. and C. Black.)

This is a collection of essays devoted to the exposition and illustration of the conception of genius. The book has evidently had a considerable vogue in Germany as the present translation is based upon the seventh German edition. The author takes as the foundation of his argument two statements from German writers ; from Schopenhauer he borrows the idea that "genius is simply the completest objectivity," while Goethe furnishes him with the principle that "the first and last thing that is demanded of genius is love of truth." Under the influence of this latter conception, genius, which is essentially love, may be put in opposition to all self-seeking, subjectivity and falsehood. Although Dr. Turck does not explicitly acknowledge his indebtedness to Wordsworth, it would be interesting to trace the influence in this work of the whole attitude of the English poet. For him also love gives insight into the meaning of nature—the poet is one whose discerning intellect is "wedded to this goodly universe in love and holy passion."

In the book before us the idea of the self-surrender of genius is developed under the influence alike of ethical and pantheistic considerations, the latter sometimes overshadowing the former. The surrender may be noticed in the threefold sphere of sensation, thought and resolution. We cannot appreciate the true meaning of our sensations unless we love things for their own sake and refrain from using them as merely instruments for our selfish pleasures. Similarly our thought constructions must be demanded by disinterested love of truth. In all our formation of conceptions we must seek to reach the true heart of things and place ideas in their true relations to one another. In this way we shall find that harmony, perfection and reality are one and the same, and we shall be set free from all the anxiety and misery of our earthly being. In action also we shall aim at no narrow and selfish ends but shall endeavour to identify ourselves with the

objective processes of nature. Thus the heart of the man of genius will be like the heart of a little child. He will take full advantage of the fact that when the box of Pandora was opened the evil of "strained expectation" was not allowed to escape. He will be free from the blighting and blinding influence of care. The attitude to life and activity will be an attitude of play—not indeed, impulsive and inconsiderate, but independent of all thought of personal advantage. In this way work will no longer be burdensome, but will become pure joy and freedom. It seems as if Dr. Turck had somewhat over-emphasized this idea of play with its freedom from any care for results. He is intensely anxious to show that genius implies an abandonment of ourselves to the divine activity, but he has not been careful enough to show that this divine activity may express itself just through an intense devotion to a personal end. It is possible that the divine end and the human end may be made coincident and we should not hurriedly conclude that the one is exclusive of the other. An allied mistake on the part of our author is his acceptance of a modified form of fatalism. He holds that the genius of Napoleon, *e.g.*, is most strikingly shown in his submission to Providence or destiny which moulds his life purposes even independently of his own will.

The greater part of the book is taken up with illustrations of the fundamental thesis drawn from literature and history. There is a certain division of the men of genius into the sheep and the goats, according as they obey the principle of objectivity or emphasize their own subjective interests. It may be pointed out in passing that our author's original definition of genius hardly admits the possibility of erring genius. The genius is the man who seeks harmony and perfection and obedience. Therefore he who expresses the grotesque or gives free play to the isolating selfish impulse can hardly lay claim to genius, and on this interpretation of the principle, Hirnner, Nietzsche and Ibsen would be excluded from the number of the elect. Yet we do not find that Dr. Turck goes the length of denying the genius of the writers of this group, though he vehemently disapproves of their teaching. A lengthy chapter is devoted to an analysis of Shakespeare's *Hamlet*. Hamlet is the disappointed idealist who becomes aware of the contradiction between appearance and reality and of the deceitfulness and sinfulness of all men. He cannot stoop to mere personal revenge, because this seems to him selfish; and he has not yet got

his ideas clearly enough arranged to proceed to action on the broader principles. "It is his misfortune that certain things are sprung upon him at the very time when, in consequence of a crisis in his mental growth, his energy has been completely arrested, and, so to speak, forced back upon itself." He is not, however, a permanently weak character. His action is simply deferred, and sooner or later he will fight his way to a life of activity which will be the true expression of his new conception of the world. Dr. Turck's interpretation of *Faust* proceeds on refreshingly original lines, even though we may not be convinced of the correctness of his view. Faust is most clearly the "man of genius" when he calls *Magic* to his aid. Magic is simply a symbolical expression of the power of genius which attains a true insight into things, and, therefore, can do great wonders. The central teaching of the poem is the blinding influence of Care. In his old age Faust becomes forgetful of the eternal realities. The occupations amongst which he had moved with free activity now become idols to the worship of which he surrenders his soul. He becomes one-sidedly biassed and engrossed in his object, while all the time he is deluding himself with the belief that he has an inward light which will save him from the darkness of error. The more common interpretation of *Faust* is that ultimate salvation is a development out of this devotion to the service of humanity, but, according to Dr. Turck, Faust wins salvation simply because his absorption in the object is excused by being attributed to senile decay and his unwearied aspiration during the rest of his life is allowed to determine his ultimate destiny. It is not possible to consider the other essays in any great detail. *Manfred* is taken as an illustration of the æsthetic man of genius and Spinoza of the intellectual. Genius in the sphere of morality is illustrated by an analysis of Buddhistic and Christian teaching, though this chapter is somewhat vitiated by an utter failure to distinguish between the Buddhistic conception of Nirvana and the Christian conception of the Kingdom of Heaven. A clear account of Nietzsche's philosophy and a just criticism of Ibsen's teaching form one of the most valuable of the concluding chapters. Altogether this is an intensely interesting book, and although the form in which it is cast necessitates a certain amount of repetition, yet the repetition does not become wearisome but rather serves the purpose of emphasizing the fundamental conception of the author.

W. S. U.

PERIODICAL LITERATURE.

THE QUARTERLY REVIEW.—July 1914. (London : John Murray.)

Some of the articles in this number have had an untimely birth. Clear and interesting as those on "The Home Rule Crisis" and "The Encroaching Bureaucracy" are, very few we should imagine have even glanced at them. Doubtless, however, the October issue will give us our fill of military and naval topics and *the encroaching autocracy*. Amongst the articles treating of more peaceful things, the most interesting, in our opinion, is that on "Sir David Gill and Recent Astronomy," written by his friend Mr. George Forbes, F. R. S. The writer, who throws much light on the progress of recent astronomy, gives us a stirring picture of "the beautiful mind and inspiring ideals of this great man." Two qualities stand out prominently in Sir David Gill's life. He was a man of dogged persistence and force of character. The result was that he made the Royal Observatory, Cape of Good Hope, one of the most splendidly equipped observatories in the world. The fact too that he was exceedingly versatile, had much to do with his triumphs. And, above all, he was a brilliant astronomer. The writer tells several anecdotes about Sir David, one of which is especially rich. In a lecture to the Institute of Marine Engineers Sir David had spoken of the hundredth of a second of arc as less than an angle covered by a threepenny bit at a distance of a hundred miles. The chairman at a dinner in the evening used the illustration to establish the astronomer's nationality, "because nobody but a Scotsman would bother about a threepenny bit at a distance of a hundred miles." Sir David Gill's nobility of character and magnetic personality are reflected in the devotion and affection of his contemporaries who were always eager to assist in his great astronomical undertakings. In the Quarterly for October 1913 Mr. H. Dodwell wrote on "British Indian History before Plassey" and in this number he completes his review of early Anglo-Indian History by a fascinating account of "The Beginnings of the East India Company." He sketches its economic progress during the seventeenth century and finds that the East India Company does not suffer much by comparison with similar contemporary organizations, in spite of James Mill and other mistaken historians. The last few pages of the article deal with the Company's

covenanted servants, few of whom, apparently, made large fortunes, "not because normal profits were small, but because trade was desperately speculative and the life of Europeans in the East was short." Still, whatever may be true of the eighteenth century, the Company seems to have treated its servants well in the seventeenth. Mr. T. W. Rolleston, in an able account of "Modern Forces in German Literature," has some things to say which are doubly interesting now. It is rarely, he tells us, that the impression is given that a German poet is speaking for his countrymen at large. "The *Reich* has become an object of frank detestation! In a recent novel the hero is made to say that, while most things in Germany are second rate, whatever is Imperial is third rate, and even Nietzsche was vehement in his attacks on Germany and the Germans. We are witnessing," says Mr. Rolleston, "a period of transition, of widespread disintegration and pitiless analysis." But this was penned before the rumours of war. Another able article deals with the life and work of Roger Bacon, one of the greatest figures of the thirteenth century. Professor W. Emery Barnes discusses the Kikuyu question skilfully and without prejudice, reviewing the facts of the situation and setting the Bishop of Zanzibar some hard questions to answer.

THE LONDON QUARTERLY REVIEW.—July 1914.

There is no outstanding article in this number but a high level of interest is maintained throughout. One of the most striking articles is that on "Lord Morley and the Christian Faith" by George Jackson, which presents the contrast between Morley's earlier antagonism to Christianity and the more recent evidence which he has given of a considerable degree of sympathy with it. Perhaps next to this in interest comes an article on the "Notables of Nantes" by Elsé Carrier. This is described as "an unpublished episode of the French Revolution," but it does not perhaps do more than add one other to the already known horrors of that time. In the article on "Bergson and Eucken in Mutual Relation" we have a short statement of the views of each of these philosophers so presented as to bring out the fact that both stand for a belief in the reality of a creative personality. Principal Forsyth writes on "The Effectiveness of the Christian Ministry" and gives a very wise, eloquent, and forcible statement of the functions of the Christian minister and

the conditions of success in fulfilling them. There is the usual comprehensive number of reviews, and among the Notes and Discussions mention may be made of that by Saint Nihal Singh on "Persia's Precarious Position." In it a clear account is given of the difficulties which face the young ruler who has just taken over the reins of government in Persia from the Regent.

THE MONIST.—July 1914.

This issue of the *Monist* possesses a quality which is somewhat rare amongst quarterly journals. Instead of offering us the usual variety of topics, it has selected a central topic and has grouped almost all the articles round this. With the exception of a purely philosophical article by Bertrand Russell the contributions deal with various interpretations of the Christ of the New Testament. The outstanding articles which seem to indicate the point of view of the journal are those by Professor W. B. Smith on "The Critical Trilemmas" and by Dr. K. C. Anderson on the "Person of Jesus Christ in the Christian Faith." Both are directed towards showing that Christ is symbolical and not historic and that the attempt to discover and reconstruct the picture of an historical Jesus is doomed to failure. The arguments are much more ingenious than convincing, and they commit the mistake of begging the whole question at issue,—which is rather surprising in a review bearing on its title-page the claim that it is "devoted to the philosophy of science." But if we needed any confirmation of our suspicion that science when it becomes philosophical and especially when it becomes theological, is apt to be more dogmatic than the narrowest orthodoxy, we should find it in the discussions before us. This is how Professor W. B. Smith disposes of the traditional view of the union of humanity and divinity in the Person of Christ—"It calls for no discussion, it is not discussible; for it is the denial and renunciation of thought." But even a statement of this degree of dogmatic confidence does not persuade us that thinking began only yesterday. The same tendency to *a priori* judgment is manifested in the attack which both Professor Smith and Dr. Anderson make on the attempt of "liberal" Christianity to reconstruct the picture of the historical Jesus. They argue that the account we have in the New Testament is symbolical and imaginary. Christ is the conception we have formed of God and we attempt to body forth this conception

in an apparently historical account. But the success of such an attempt is impossible, say our disputants, for the reason that if Christ is God, he cannot be man. They seem to forget that the whole question is whether the historical was not redeemed and glorified by being made the vehicle for the manifestation of the Christ, and they overlook the possibility that the historical may be symbolical (in the sense of revelatory) chiefly *because* of its historicity.

THE THEOSOPHICAL PATH.—June and July 1914.

These issues contain an interesting and well-illustrated article on Chinese and Japanese art. A description of the Piræus as it was in the days of Grecian glory precedes an article in didactic vein upon "International Courtesy," in the course of which the writer inveighs against the use of familiar curtailments in speaking of the people of other nations. He is probably right. We speak of the "Japs" but Americans would not like to be referred to as the "Ams," nor would we British rejoice in the designation of "Brits." The problem of the Lost Atlantis seems to have peculiar fascination for writers in this magazine and is again made the subject of an article. One of the most elaborate contributions is an account of recent excavations in the Baths of Caracalla in Rome.

THE INDIAN REVIEW.—April 1914.

Finance, Law, History, Education (in articles by the Bishop of Madras and Mrs. Besant) and Ethnology are discussed here. There is an article on "Economics and Psychology"—a department of political economy which has received far too little attention. An acute and—in the light of recent developments—highly interesting account of Continental affairs is given. The Press is rightly blamed for doing its best to precipitate a Russo-German war. But there are far too many mistakes and misprints. "Autonomy" appears as "atonomy." Even the four lines printed below the frontispiece contain the phrase "whose remarks. . . is published."

HINDUSTAN REVIEW.—July and August 1914.

In this *Review* for July Dr. Shastri writes on Plato and Sankara and compares these philosophers with regard to their doctrines of Ideas of Knowledge and of the Soul.

Dr. Shastri, a thorough Pantheist, and a skilful one—so much so, that he finds in the Vedantist Philosophy “a happy combination of Monism, Theism and Pantheism,” —concludes that the idealism of Sankara is of a higher type, more abstruse and more abstract than that of Plato. One shrinks from a further examination of this conclusion or of the means whereby it is reached, for Dr. Shastri, with surely more than a suspicion of intellectual arrogance, seeks to disarm all criticism of Sankara’s Vedantism which is “rather too refined to be within the comprehension of ordinary people. It is a pity that such people should criticize it severely in a false light and try to ridicule its followers and upholders. It has been much misunderstood by men at large. It requires an unbiassed and polished mind, wide understanding, highly developed reason, and a critical acumen to drink the tranquil and ambrosial waters of this highest philosophy.”

A writer on the moral of the Banking Crisis seeks to draw encouragement from failure. Swadeshi Banking has had its disasters. But, he says, “such have occurred in every other country on the earlier stages of its banking history.” But it is surely too much to maintain that in the interest of its own development a country should ignore the lessons which it may learn from other countries that have gone along the same path before.

We may refer to an article on “The Bahai Movement of Persia ;” to one on “Sultana Raziyya” and to one on “Some Aspects of Hindu Society in the Time of Manu.” These and the others to which reference has already been made are eminently typical of the interesting material which these numbers of the *Hindustan Review* provide.

ACKNOWLEDGEMENTS.

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